

# THE GLASGOW SCHOOL OF ART

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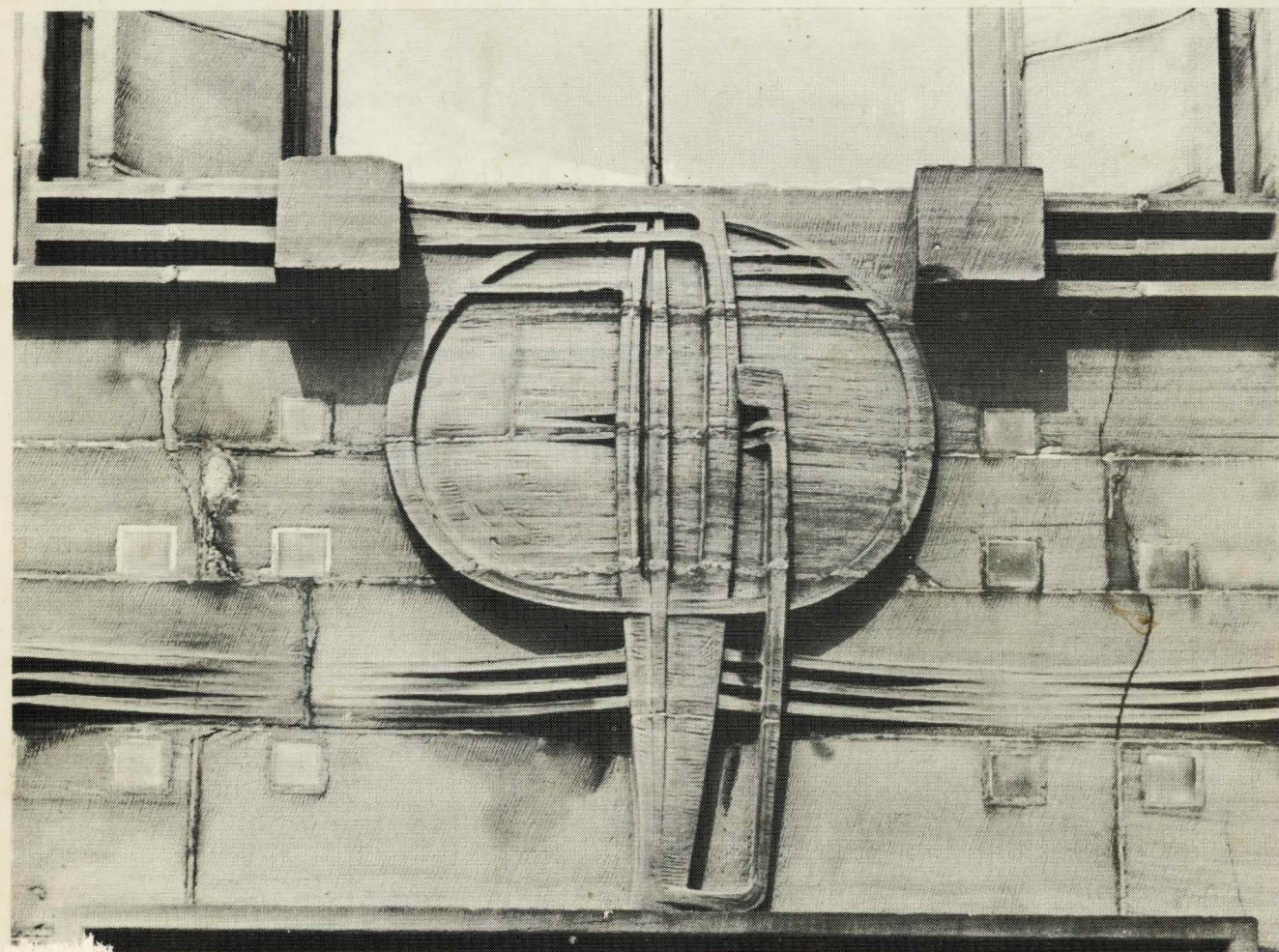
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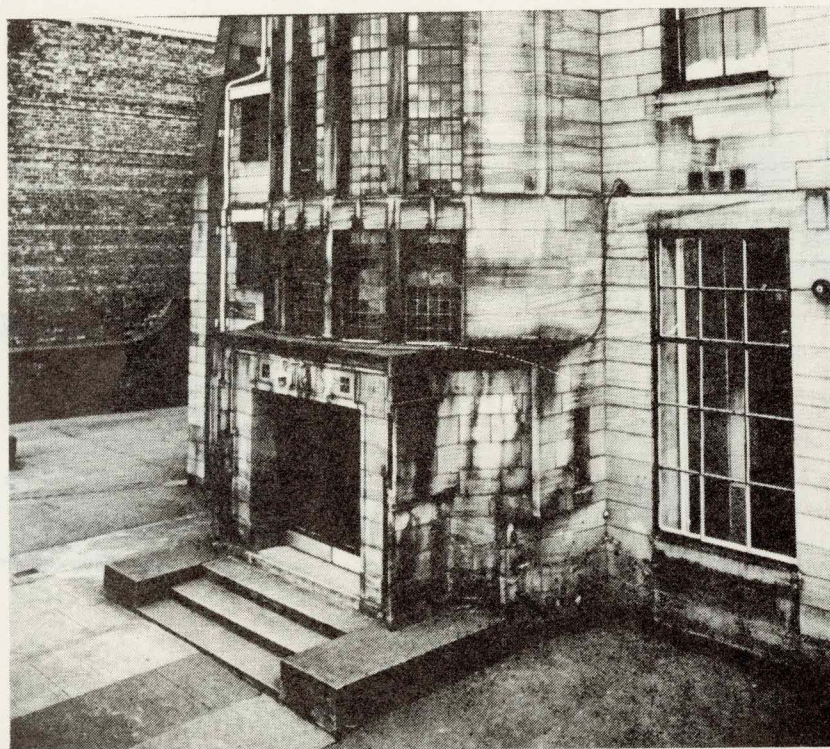


Charles Rennie Mackintosh  
Scotland Street School —  
A New Survey



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Scotland Street School — A New Survey sees the Glasgow Print Studio Gallery moving in two new directions — Architecture and Charles Rennie Mackintosh — a combination which adds up to one of its most ambitious exhibitions to date. Future exhibitions concerning Architecture are envisaged building on the experience gained here which could potentially develop into an exciting situation in a City so rich in Architecture which is often little appreciated.

The idea for this particular Exhibition was born from a desire to see the work of Mackintosh explored in more depth than it has been hitherto despite the considerable amount of published material currently available in which attention primarily focuses on his decorative and furniture designs. An attempt has been made here to redress the balance in this respect. As a result of this study the School is seen in a new light, revealing much of Mackintosh's ideas and preoccupations during this transitional period in his development as well as showing how necessary it is to see the decorative work in its true Architectural context.

During the preparation of these survey drawings grave doubts existed (and still persist) over the future use of Scotland Street School. It is to be hoped that through these immaculately detailed drawings, some perceptive comments and the photographs accompanying people will be sufficiently stimulated to ensure Scotland Street School an active and secure future — a National Museum/Centre for the Decorative Arts perhaps — not an unreasonable suggestion considering the wealth of material available as this exhibition itself goes some way towards proving.

Mark Baines.



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#### SCOTLAND STREET SCHOOL: A NEW SURVEY

Recent publication of the Architectural works of Charles Rennie Mackintosh largely has been composed of what might be termed publisher's material; available and familiar illustrations accompanied by a re-paraphrasing of existing texts, and in the Decorative field, Mackintosh has become a (copyright free) industry, proliferating Furniture, Tee Shirts, Post Cards, Prints, Decorated Tiles and even Jewellery.

It is therefore a pleasure to welcome the initiative of the Glasgow Print Studio in making available to architects, and others interested in the content and quality of Mackintosh's architectural work, these splendid measured drawings and new photographs of Scotland Street School, which offer both fresh insight and more precise information about a major building designed and built by this most complex and fascinating architect.

The scale drawings by Jim Opfer and Alan Millar, measured and drawn as a Special Study at the Mackintosh School of Architecture, have been brought together with the photographs by Robert Hamilton to present visual evidence of a most accurate kind, of work by Mackintosh largely known until now only by the perspective and a smudgy grey photograph of the front.

Scotland Street School, a primary school for 1,250 children, was designed and built between early spring 1904 and late autumn 1906, at a time when Mackintosh was reaching the height of his creative power and perhaps finishing his most intensive period of work; that he was entering a second period of innovation has gone relatively unnoticed until recently, perhaps because of the highly selective nature of most of the published material, or even the scarcity of visual material which these drawings and photographs may now help to balance.



During the three years immediately previous to designing the school (1900 - 1903), Mackintosh had conceived and largely completed his major domestic works: in Scotland, Windyhill and Hillhouse together with their furnishings, and in Vienna, the Warndorfer Salon; had produced submissions for two major competitions: The Art Lover's House, and the Liverpool Cathedral; he had also exhibited in each year: at the Vienna Secession in 1900, at the Glasgow Exhibition in 1901, Turin in 1902 where he designed and displayed the Glasgow School of Art exhibit; at the Exhibition of Decorative Art and in Moscow in 1903.

In 1904 therefore, the commission for the school was taking its place in the output of a busy professional office at an intensive period in the life of a newly created partner, albeit he (Charles Rennie Mackintosh) was a creative genius. He was currently concerned to evolve a rational non-historic and total approach to architectural design and decoration, an aim to which he brought to bear the strength of a traditional architectural training in planning and construction, and a belief in the need for a new national architecture, a new architecture derived from building, rather than the formal canons of historicism, and able to absorb the new technologies; of comfort, central heating, gas lighting; of construction — steel, concrete, plate glass; and the machine production of furniture and building components.

His workload perhaps is reflected in his apparent ready adoption of a standard school planning arrangement for the school. Whether this was due to the client's insistence or was a matter of convenience in the circumstance, is interesting, but less relevant and enlightening than the fact that it usefully allows us to examine the nature of his personal approach to architectural design and gain in consequence a better appreciation of his artistic achievement.

The generic School Board Plan was simple: standard classrooms arranged along one side of a corridor, non standard elements like art rooms and cookery rooms on the other above an assembly hall on the ground floor flanked by 'Boys' and 'Girls' entrances and stairs, with adjoining cloakrooms and staffrooms at each end of the corridor. There was also, somewhere suitable, an 'Infants' entrance.

At Scotland Street, in Mackintosh's hands this plan becomes a subtle instrument for a display of architectural sensibility: accepting its logic he goes on to examine the locations and nature of each element and create within the apparently symmetrical programme, a unique spatial organisation and a composition of simple Vernacular elements transmuted by his insight and creativity into a memorable masterwork.

The apparently simple plan is made singular by a slight offset between front and rear, perhaps in response to the shape of the site, and a simple re-arrangement of the staffrooms at one end of the corridor.

Externally, a screen wall and arch are added between the building and the boundary wall on one side to balance the janitor's house on the other, thus manifesting the asymmetry, while careful positioning of the building towards the front of the site creates the necessary 'Boys', 'Girls' and 'Infants' playgrounds.

Internally, the circulation is recognised as that area which connects, locates, and by its character informs the programmatic elements of the building: it forms a continuous interpenetrating space, open to the hall, visually connected through glass screens to the classrooms, and stair cases extended contact between interior and exterior, and



with their adjoining split level cloakrooms, set back landings, and open turret roofs, create a complex of high and low, light and dark space reminiscent in its singularity and intensity of the circulation space of the Glasgow School of Art and the work of his great American contemporary — Frank Lloyd Wright.

The structural logic of simple longitudinal load bearing masonry wall, with transverse lightweight glazed partitions is immediately clear, complimenting the simplicity of the plan and section and demonstrates again how the directness of Mackintosh's first approach is then succeeded by an appraisal of the possibility of enrichment by an articulation of the parts leading in this case to the minor complexity of the roof, and the bold modelling of the front elevation.

Externally, we are perhaps all familiar, even over familiar, with the front elevation, both in its initial stage, the Perspective, and in its later built form. With its two projecting stairs it is often formally compared to the later (1910) Werk Bund exhibition factory by Walter Gropius, which it may well have influenced, and there comment usually stops. In the school however, it is clear the stair towers, and indeed the general form of the building relate to Scottish Vernacular Architecture with its emphasis on gabled ends and projecting turret stairs: these new drawings reveal how Mackintosh's talent lay in transforming a basically simple plan and vernacular elements into a unique and memorable form, organised and decorated by a highly personal ornament appropriately applied, a confirmation of his often expressed aim to create a true decorated construction.

An analysis of the where and the how of the decorative scheme is coherently presented in these drawings for the first time, and enables us to observe in

action Mackintosh's stated intention:—

*"that construction should be decorated . . . . the salient and most required features should be selected for ornamentation: so from this it must appear, that windows and doors being about the most important of modern requirements, round these should any ornament be sought".*

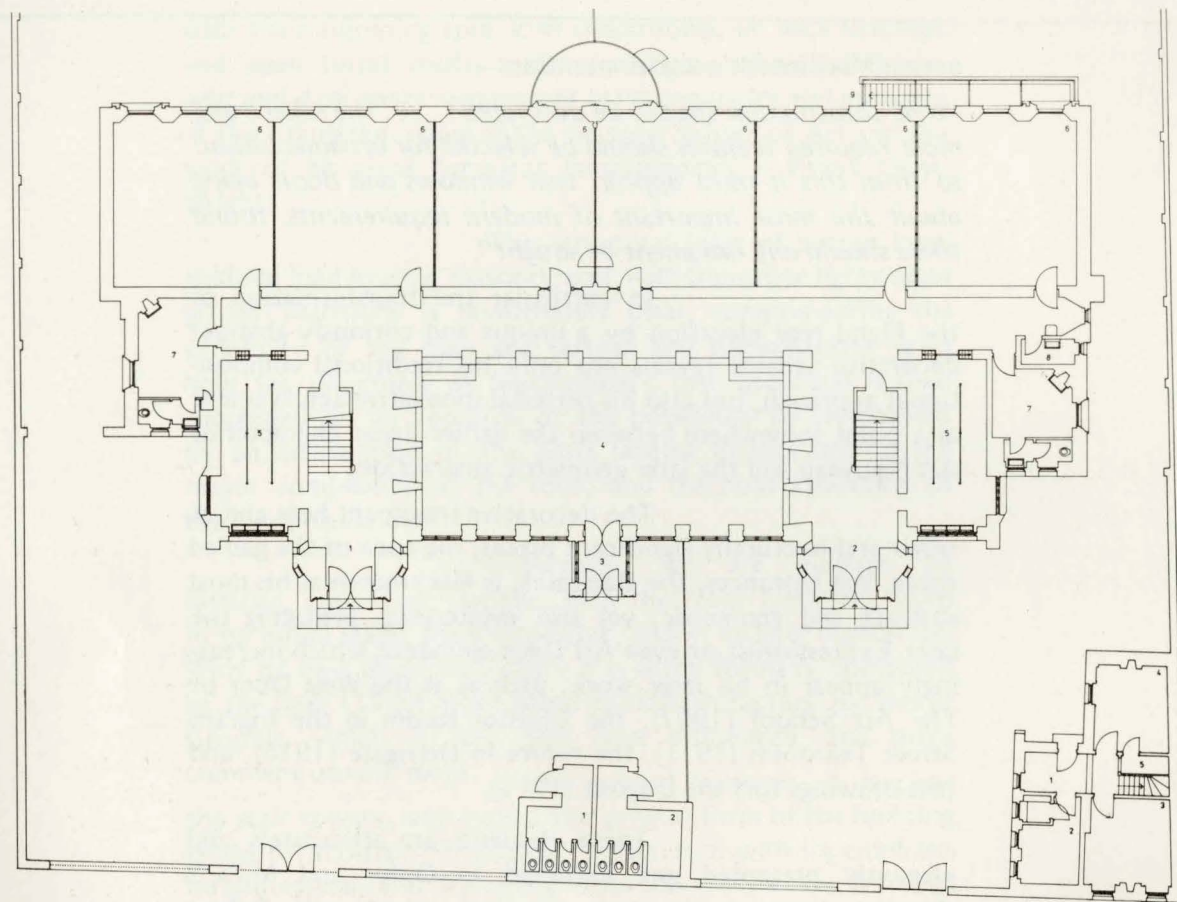
In particular the transformation of the bland rear elevation by a unique and curiously abstract decorative scheme reveals not only his traditional compositional approach, but also his personal innovative achievement at a point somewhere between the earlier linear character of Art Nouveau and the later geometric abstraction.

The decorative treatment here and at other architecturally significant places, the apex of the gabled roofs, the entrances, the staircases, is Mackintosh at his most abstract and geometric, yet still mysterious, presaging the later Expressionist or even Art Deco elements, which increasingly appear in his later work, such as at the West Door of The Art School (1907), the Cloister Room in the Ingram Street Tearooms (1911), the rooms in Derngate (1916), and (the drawings for) the Dugout (1917).

These elements are articulately and elegantly presented and explored in Opfer and Millar's drawings (even to the stone jointing), which with Robert Hamilton's photographs, constitute a record of inestimable value, should the buildings, and the present suggestion to utilize and creatively preserve the building as a Museum of (local) Education, fall through.

A. MacMillan  
June 1980





#### Ground Floor School Building

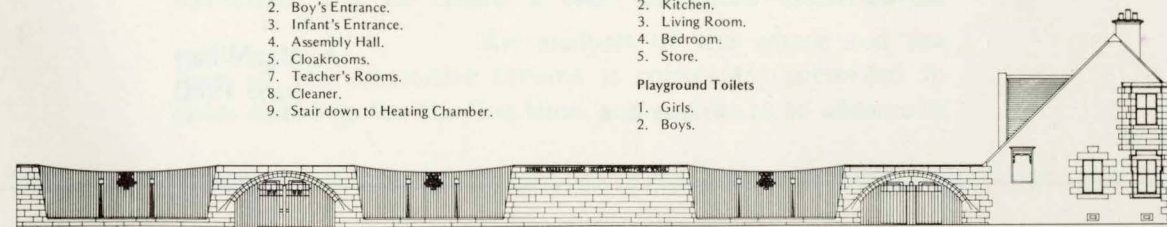
1. Girl's Entrance.
2. Boy's Entrance.
3. Infant's Entrance.
4. Assembly Hall.
5. Cloakrooms.
6. Teacher's Rooms.
7. Cleaner.
8. Stair down to Heating Chamber.

#### Janitor's House

1. Entrance Hall.
2. Kitchen.
3. Living Room.
4. Bedroom.
5. Store.

#### Playground Toilets

1. Girls.
2. Boys.



#### Plan at Ground Floor Level

The plan is based on a standard layout issued to Architects by the School Board, which demanded the physical separation of girls and boys. The plan is now quite symmetrical but has been contrived to give the impression of elevational symmetry. The centre axis of the South Facade does not line through, as one might expect, with that of the north, there being a difference in alignment of about 350mm. This can be seen on the upper floors where opposing classroom doors do not line through.

#### Playground Wall and Elevation to Janitor's House

Originally the playground wall had two arched gateways. The arch adjacent to the janitor's house was later removed to allow access for lorries. The iron gates now used at this modified entrance are known to be replicas of the originals.

The janitor's house could claim with more justification to share something in common with the houses of Voysey. The resemblance is superficial, based as it is, on the ordering of the roof lines, but actually harking further back to parsonages for "commissioner's churches" and later to his rural designs.

In attempting to achieve truthfulness in construction, the varying roof lines and junctions inside cause a little confusion, but it is nevertheless intriguing that the walls laid not parallel to the boundary cause a natural fall to the gutter where the boundary wall rises to intersect the roof pitch. Another feature of note is the Art School type screen to the stairs, (refer to section drawing No. 2) which does not fall parallel to the stringer as a handrail, but instead sails straight out to meet an extended "Newal Post" and in doing so, becomes a timber slatted screen.



DRAWING No. 1

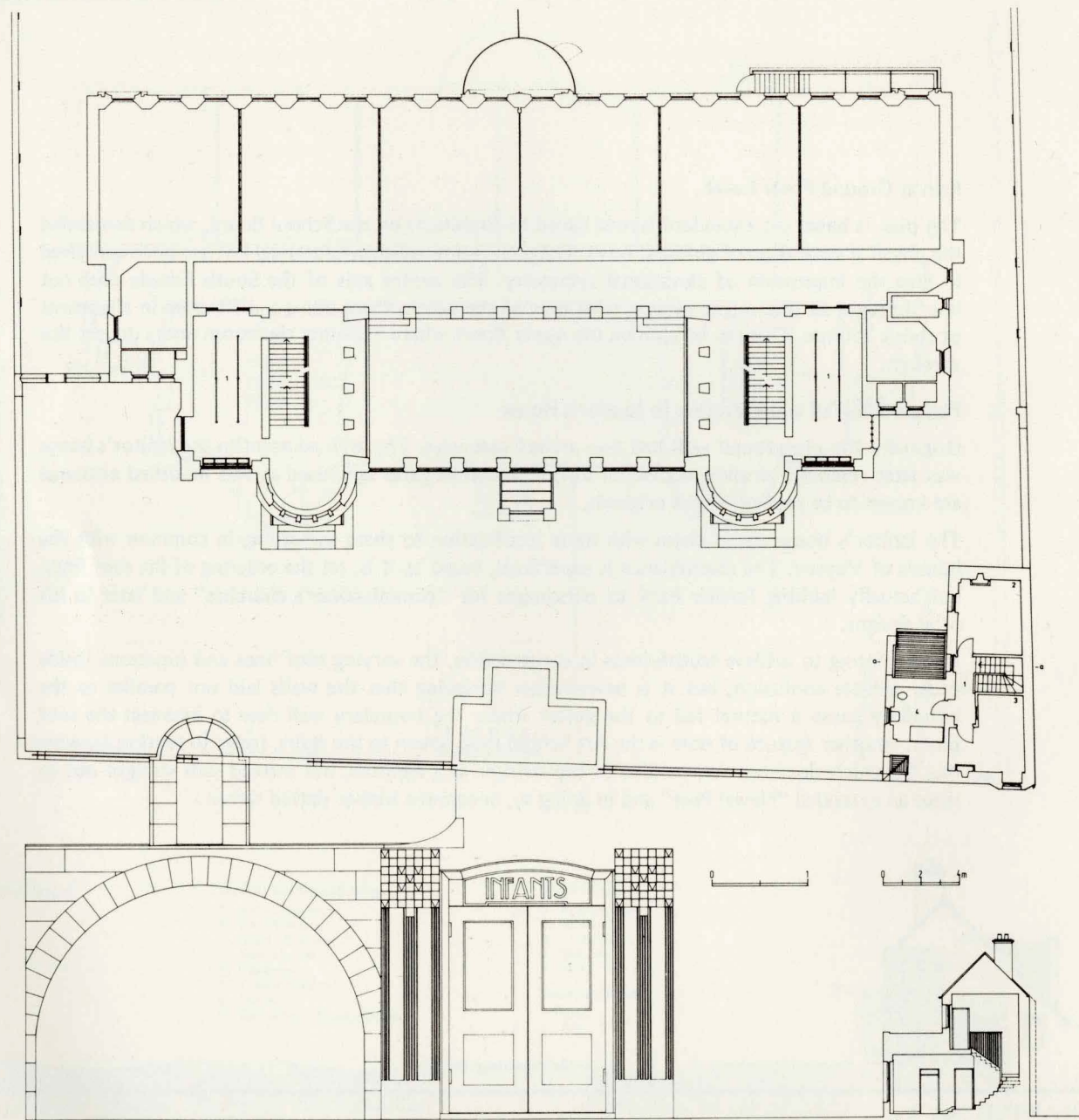


# Ground Floor Mezzanine Plan of School Building

1. Cloaks.

## Janitor's House

1. Upper Hall.
2. Bedroom.
3. Bedroom.
4. Bedroom.



## Ground Mezzanine Level

Between each main floor level there is a mezzanine cloakroom situated off the stairwell at half landing level. These rooms with their child-size scale were originally open ended and formed a Gallery which overlooked the main east-west corridor of the floor below. Within the stairwell at this level free-standing pillars clad in blue and green tiles allowed a view over and into the assembly hall.

Due to fire regulations this spaciousness has subsequently been lost as fire screens and walls have been added.

## Elevation to Infants Entrance

The infants entrance porch, built to an infant scale, appears to be "stuck on" to the main facade. Two bold stone piers, with raised draught board motif capitals, flank a lead covered vault.

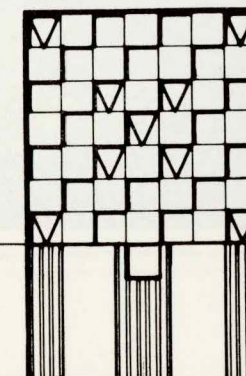
This capital detail is graphic in origin and cannot be translated easily onto the stone, here the mason has been forced to bend the horizontal and vertical lines slightly, so that the corners of the raised squares may be allowed to touch. Similar practical problems are encountered on the south facade. (See drawing No. 12).

## Playground Arch

The large semi-circular arch is topped by a much smaller one, which was probably intended to house the playground bell. However, the existence of a "standard school issue" Victorian Bell on the west facade, together with the lack of marks from a bell connection to stone, would suggest that the smaller arch was never used as a bell housing.

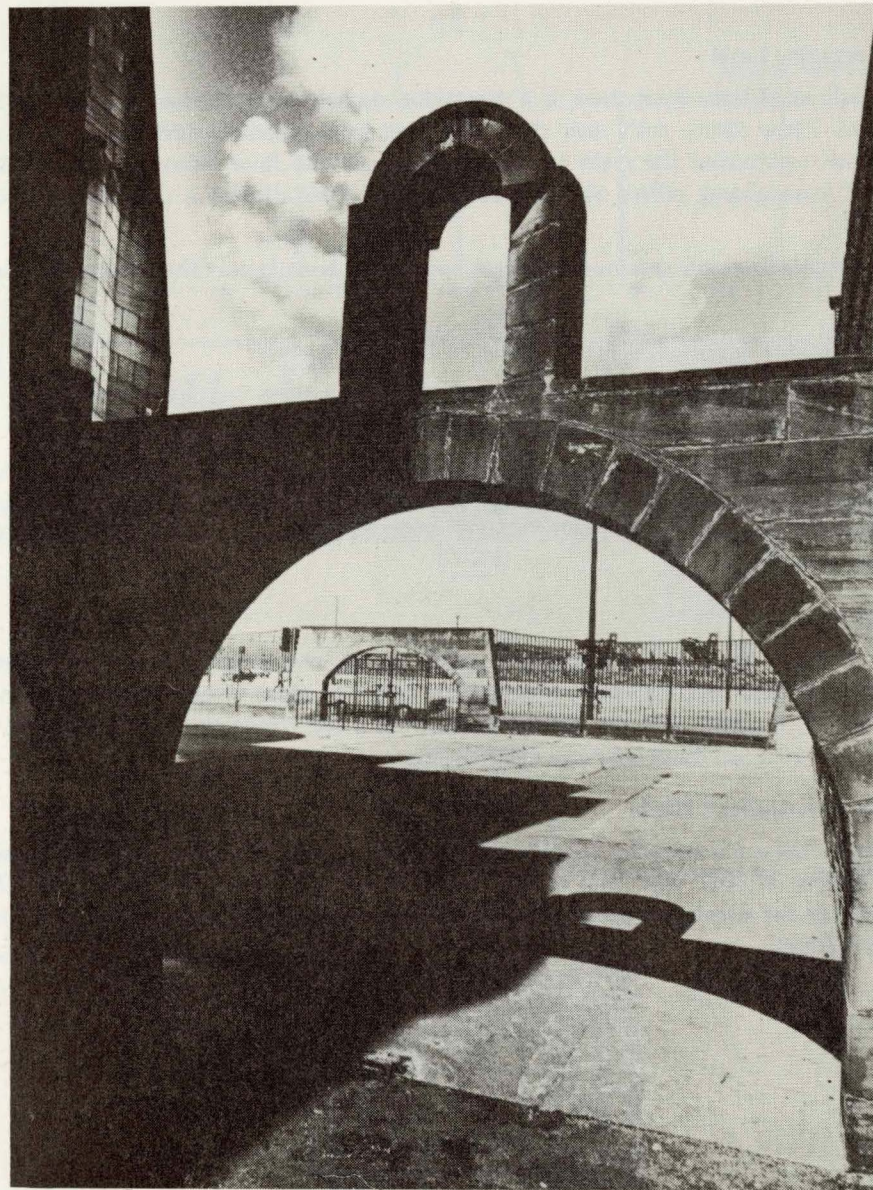
## Section Through Janitor's House

Taken through the main entrance hall, showing the stair screen detail used by Mackintosh in the "Glasgow School of Art" and "Hill House", Helensburgh. The dotted line shows the full width of the house on the Scotland Street frontage and illustrates the degree of change along which the gutter falls naturally.

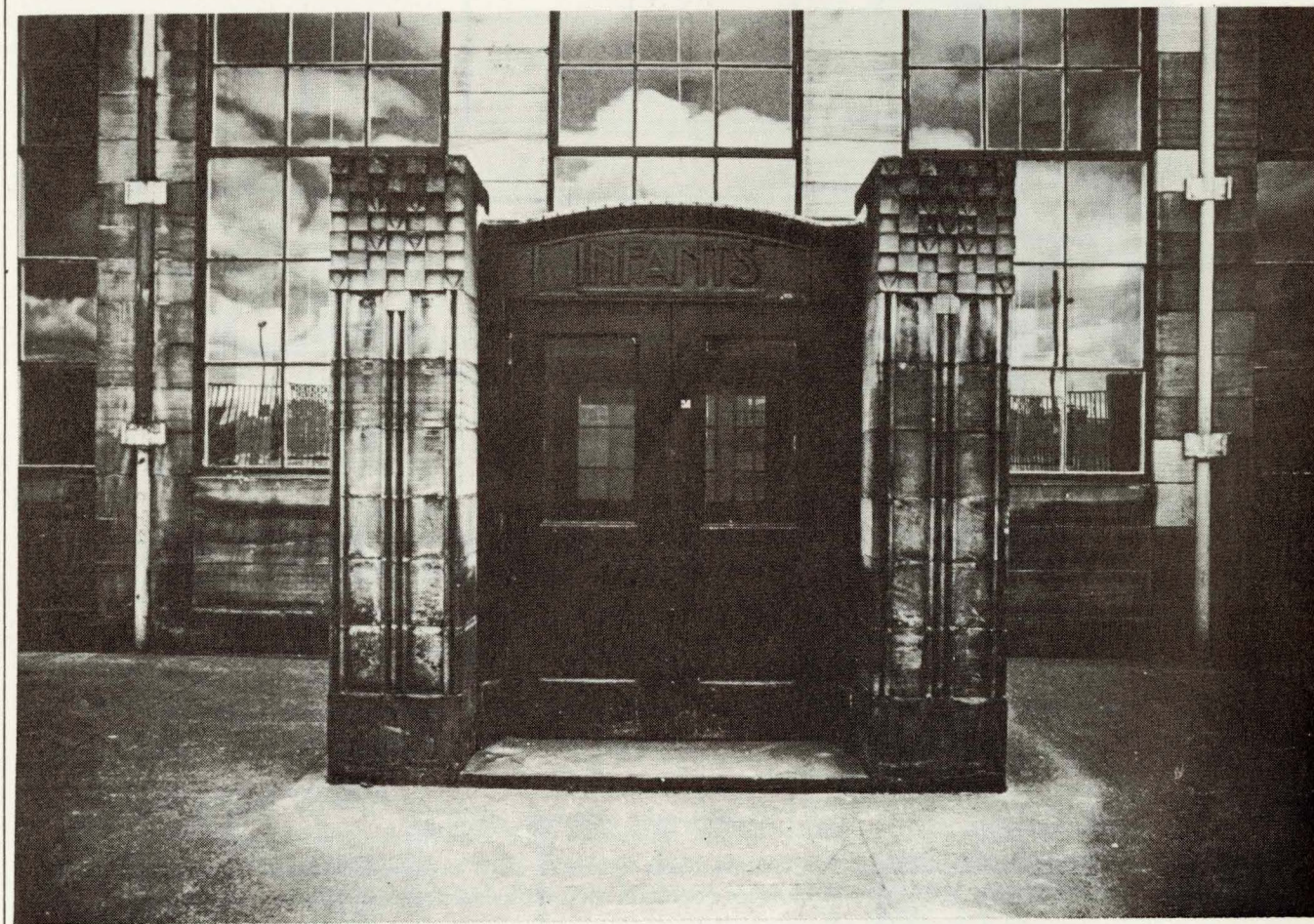


DRAWING No. 2



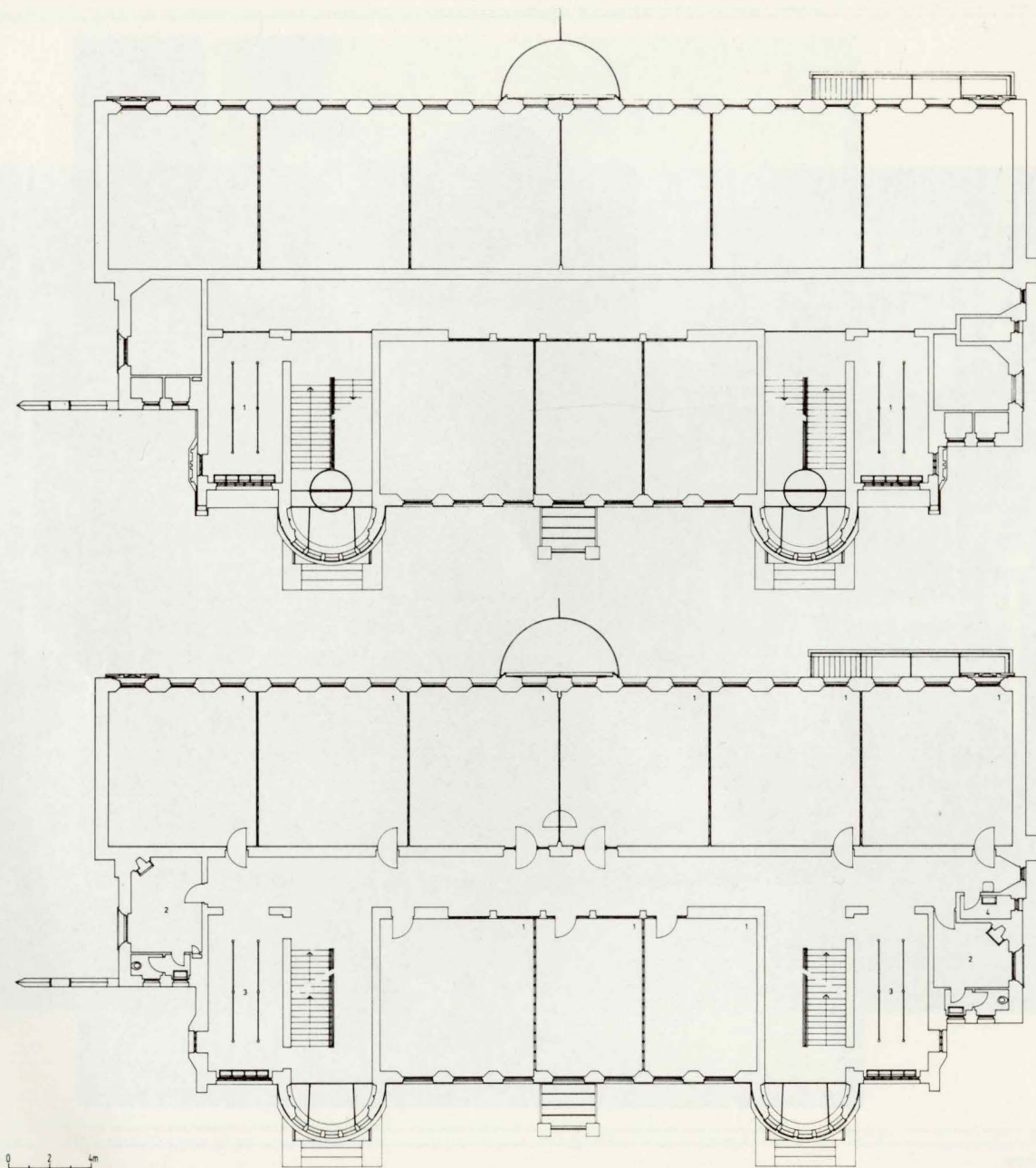


*Playground Archway.*



*Infants Entrance.*



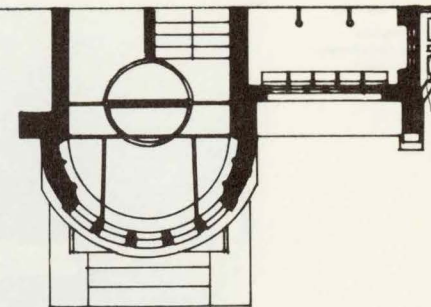


First Floor Plan

- 1. Classrooms.
- 2. Teacher's Rooms.
- 3. Cloakrooms.
- 4. Cleaner.

First Floor Mezzanine Plan

- 1. Cloakrooms.



### First Floor Plan

At this level Mackintosh has opened up the wall to the north side of the main corridor and in its place, inserted four tall pillars. Between these, glazed screens allow a high degree of borrowed natural light to penetrate and illuminate an otherwise dull internal passage.

On all three floors the two centre classrooms, on the south side, are capable of being made into one large room by the introduction of a sliding screen. To recognise this potential the classroom doors have been grouped together. However, at this point in the hallway, the contradiction of the building's double axis can be seen when this double door composition is read against the four columns which relate to the symmetry of the front.

### First Floor Mezzanine

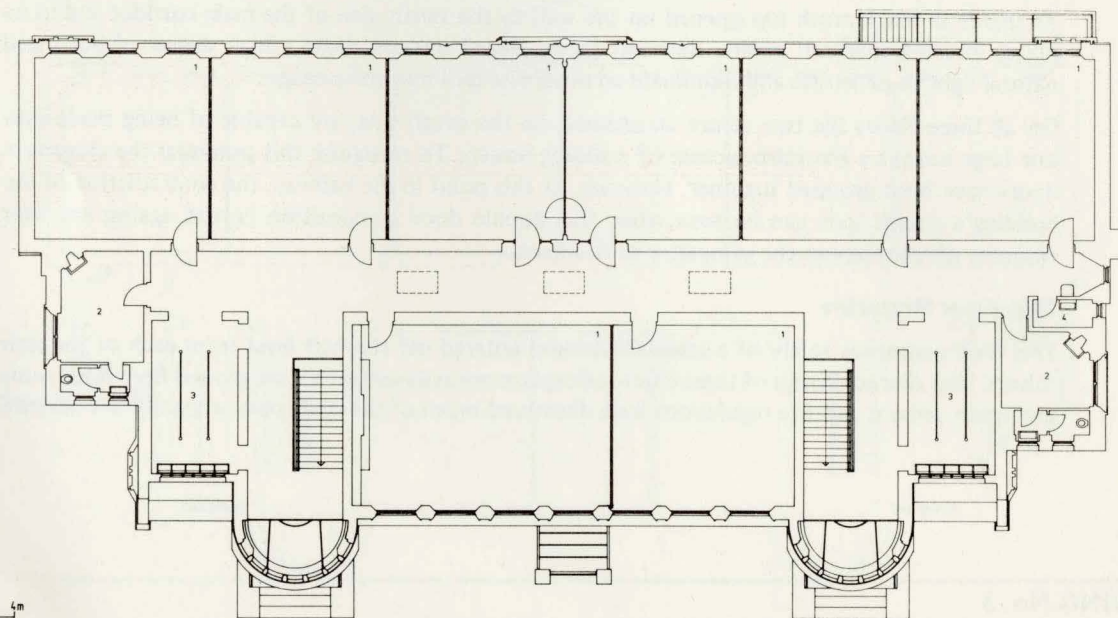
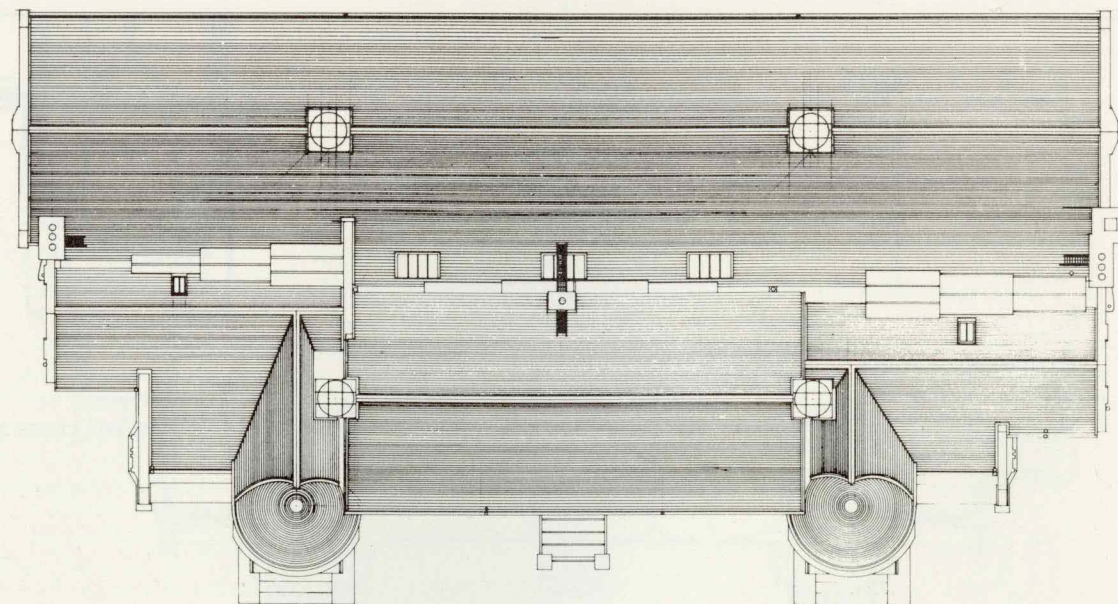
This level comprises solely of a small cloakroom entered off the half level from each of the stair towers. The characteristics of these child-scale spaces are as described for the ground floor mezzanine and again present day fire regulations have destroyed much of the open-ness originally in evidence.

DRAWING No. 3

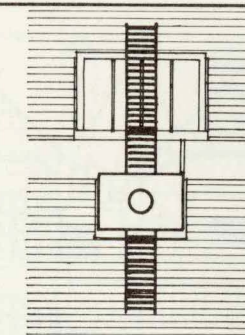


#### Second Floor Plan

1. Classrooms.
2. Teacher's Rooms.
3. Cloakrooms.
4. Cleaner.



0 2 4m



#### Second Floor Plan

On this floor Mackintosh has been able to illuminate the central corridor by the introduction of three rooflights. The need to provide natural daylight is therefore satisfied and makes the column and glass screen structure of the first floor unnecessary. Architecturally the rooflights strengthen the idea of being at the top of the building. Coincidentally there is also the practical advantage of the solid wall to the corridor which provides good sound insulation from the noisy cookery classroom and acts as a firm base from which to spring the roof structure.

As the doors to the front classrooms bear no relationship to the symmetry of that facade the corridor rooflights have been spaced in relation to the centre of the rear facade. The conflict of symmetry between the front and back of the building, seen in the plan of the first floor, is not apparent here.

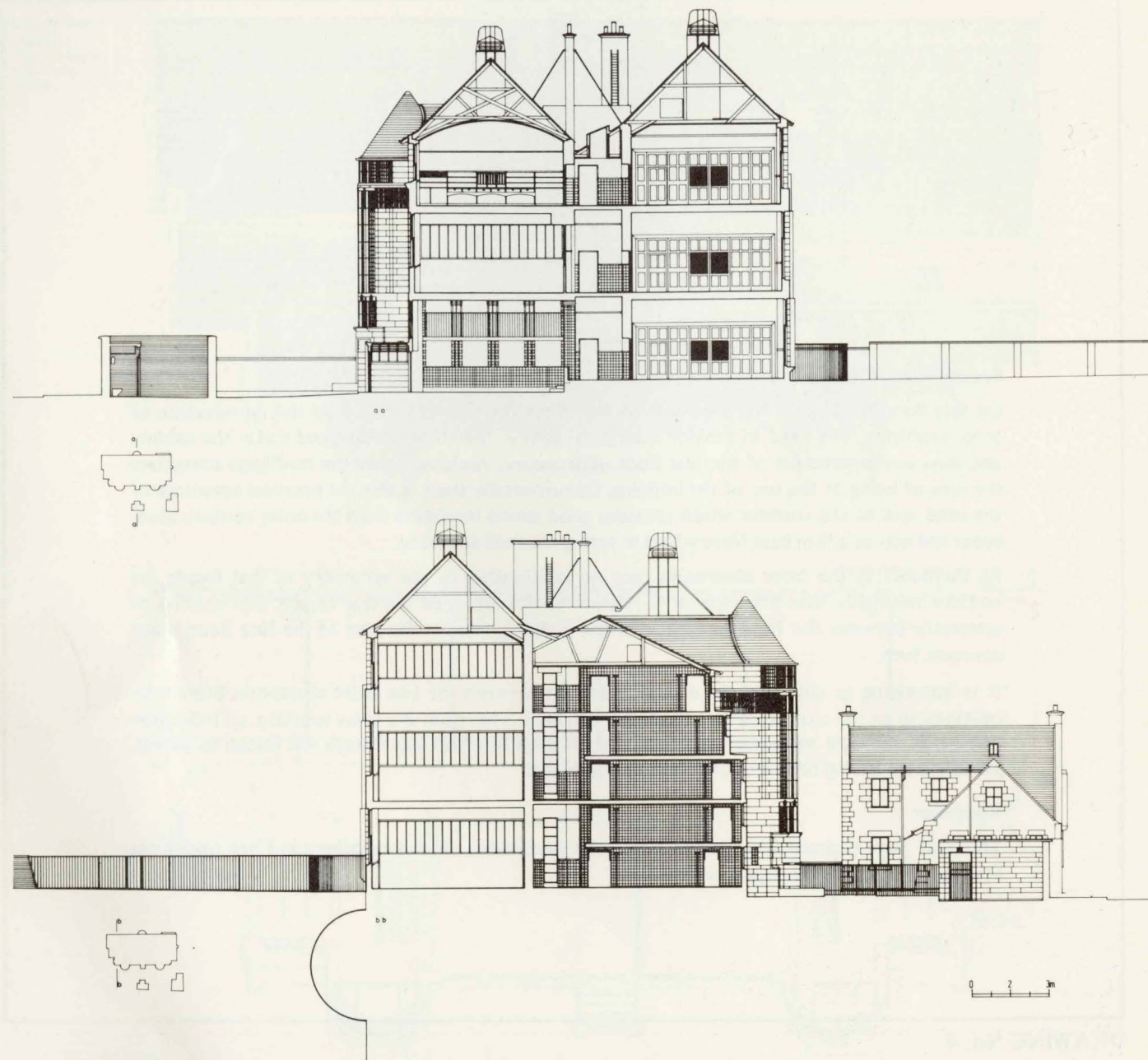
It is interesting to note that the dividing partition between the two front classrooms bears little relationship to the spacing of the classroom windows. The result is a nasty junction, an indication perhaps of the rigid and unbending nature of the brief to which Mackintosh was forced to adhere, specific areas having been set down for classroom sizes.

#### Roof Plan

The roof plan perhaps best demonstrates the asymmetry of the buildings and yet underlines Mackintosh's attempt to regain symmetry.

DRAWING No. 4





### Sections

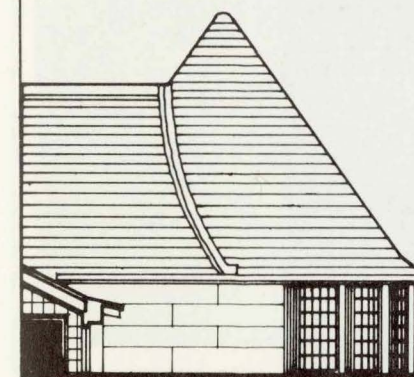
a.a. Taken through the centre of the building this section shows the original open balcony and entrance hall which overlooked the main assembly area.

The vaulted room on the top floor is the cookery classroom. The cabinet shown occupying the end wall to this room is still in existence and was originally used for the storing of crockery and kitchen utensils.

Although built-up today, the original fireplace chimney still stands and is seen in elevation. The centre classrooms to the rear of the building are separated by a folding screen each fitted with blackboards.

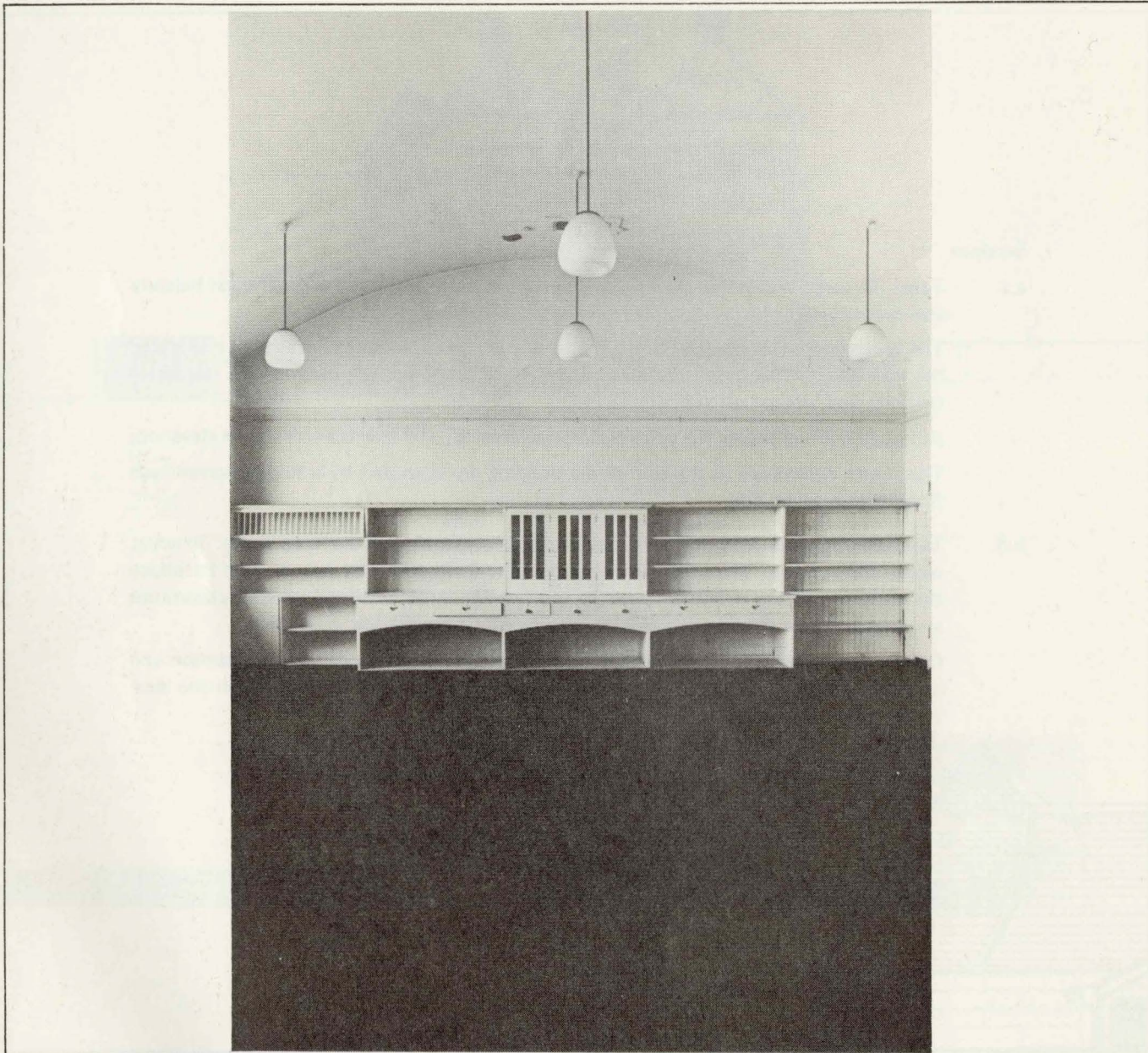
b.b. Taken through the cloakrooms, one can immediately appreciate the "two scales" inherent within the building. The small cloakrooms to the front gradually step back to introduce the curvature of the stair tower, and to the rear the larger institutional-scale classrooms are an example of the formal attitudes towards education existing at the time.

On the ground and first floors the main corridors are double volume in proportion and are made more interesting by being overlooked from the open cloakrooms on the mezzanine levels.



DRAWING No. 5



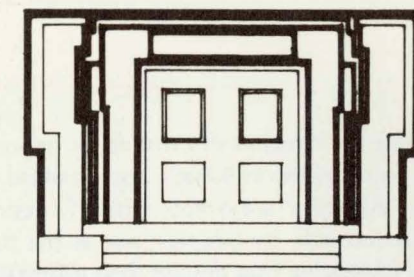
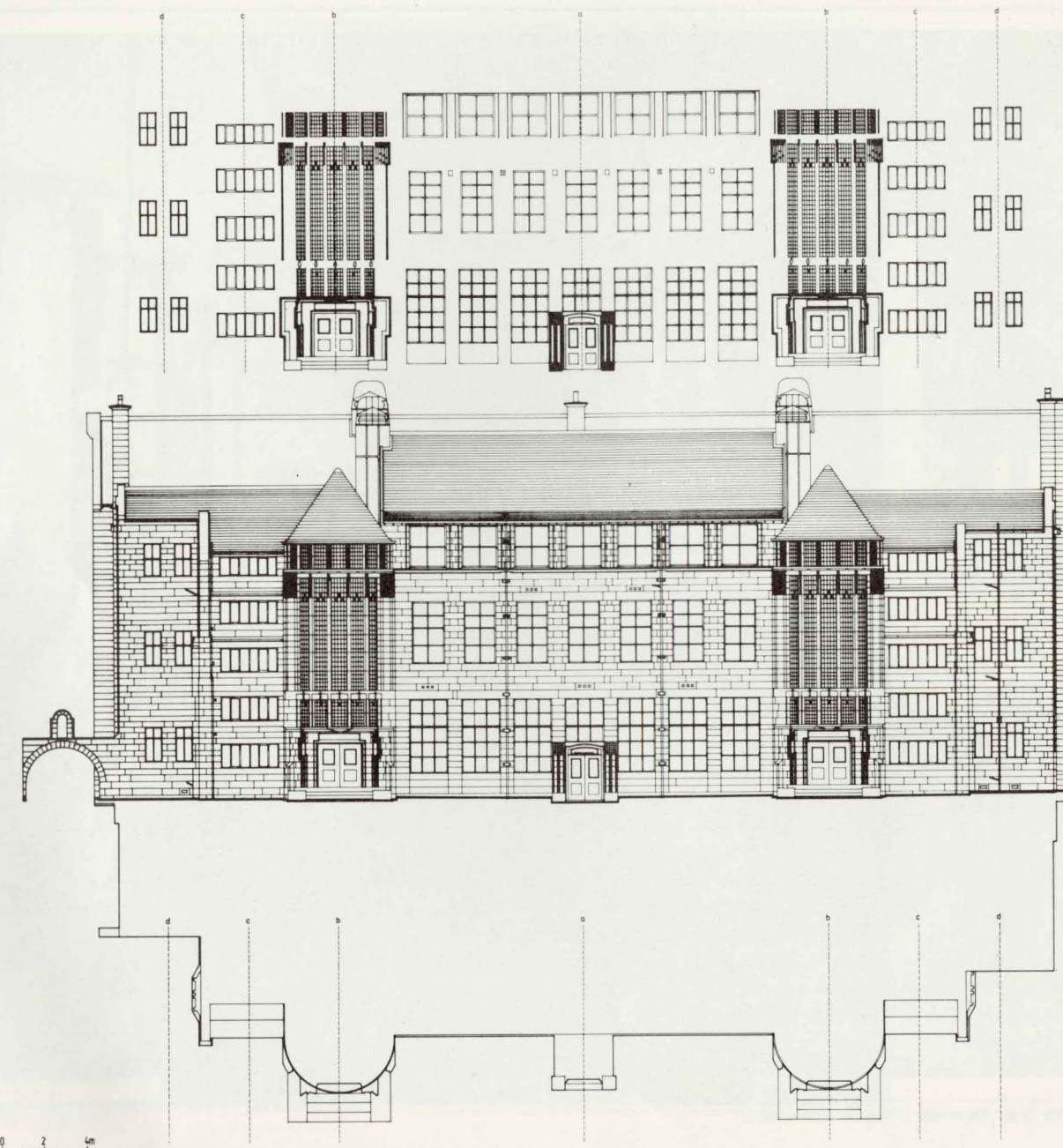


*Cookery Room cabinet.*



*Assembly Hall. (Courtesy Glasgow University).*





# The North Elevation

*Upper drawing No. 6 Fenestration Analysis.*

*Lower drawing No. 6 Building Profiles.*

In comparison with the symmetrical south elevation, which draws much of its effect from an elaborate display of relieved and incised stone detail set against a simple tenemental form, the north elevation to Scotland Street is high sculptural and very dramatic.

Here the facade is asymmetrical and a very positive attempt has been made to create an overall illusion of symmetry, a theme which Mackintosh was fond of.

This facade is very carefully composed into three basic elements, the two side extremities of which, i.e. those elements which are asymmetrical, are purposefully unpronounced and stand well back onto a different plane from the non-predominant, and symmetrical, centre composition.

The middle portion of this central element is a three story block, all of which is capped under one steeply sloping slated roof. The scale here is exaggerated by the tiny infants entrance.

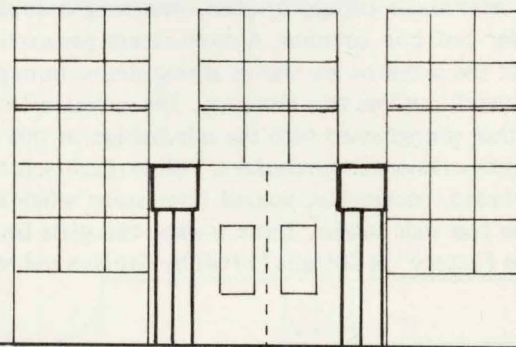
Early "Dean of Guild" drawings show Mackintosh's original intention to make the ground floor assembly hall windows a continuous curtain of glass, stretching between the two stair towers, punctuated only by slender cast iron columns. A more recent perspective however, shows what we have today, except that the windows are shown arising almost from ground floor level. Today a small rebate in the stonework outlines this intention. The vertical effect created by this implied window proportion is further strengthened with the sub-division of this block into three, by the introduction of two decorative rainwater conductors. This verticality is balanced by a deep overhang at roof level and a broad, continuous, second floor stone windowsill. The composition is held on either side by the two stair towers. These towers, two glass lanterns, may be compared to those of the "Exhibition Factory" in Cologne (1914) by Gropius and Mayer.



The incursion of stone moulding on Mackintosh's towers, as opposed to the later day "Machine Age Architecture" is positive proof of the building's age. Moulded in the manner of a Cathedral rather than a school, the stone "shoulders" are symptomatic of a desire to decorate the construction. This desire, later considered unnecessary by Gropius, was at the time thought to be appropriate by Mackintosh. However, it is interesting that despite their different philosophies, both architects gilded their buildings with stair towers.

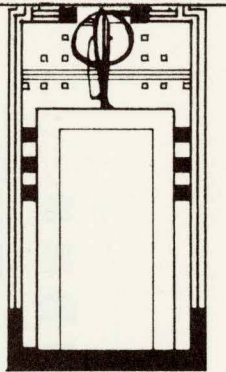
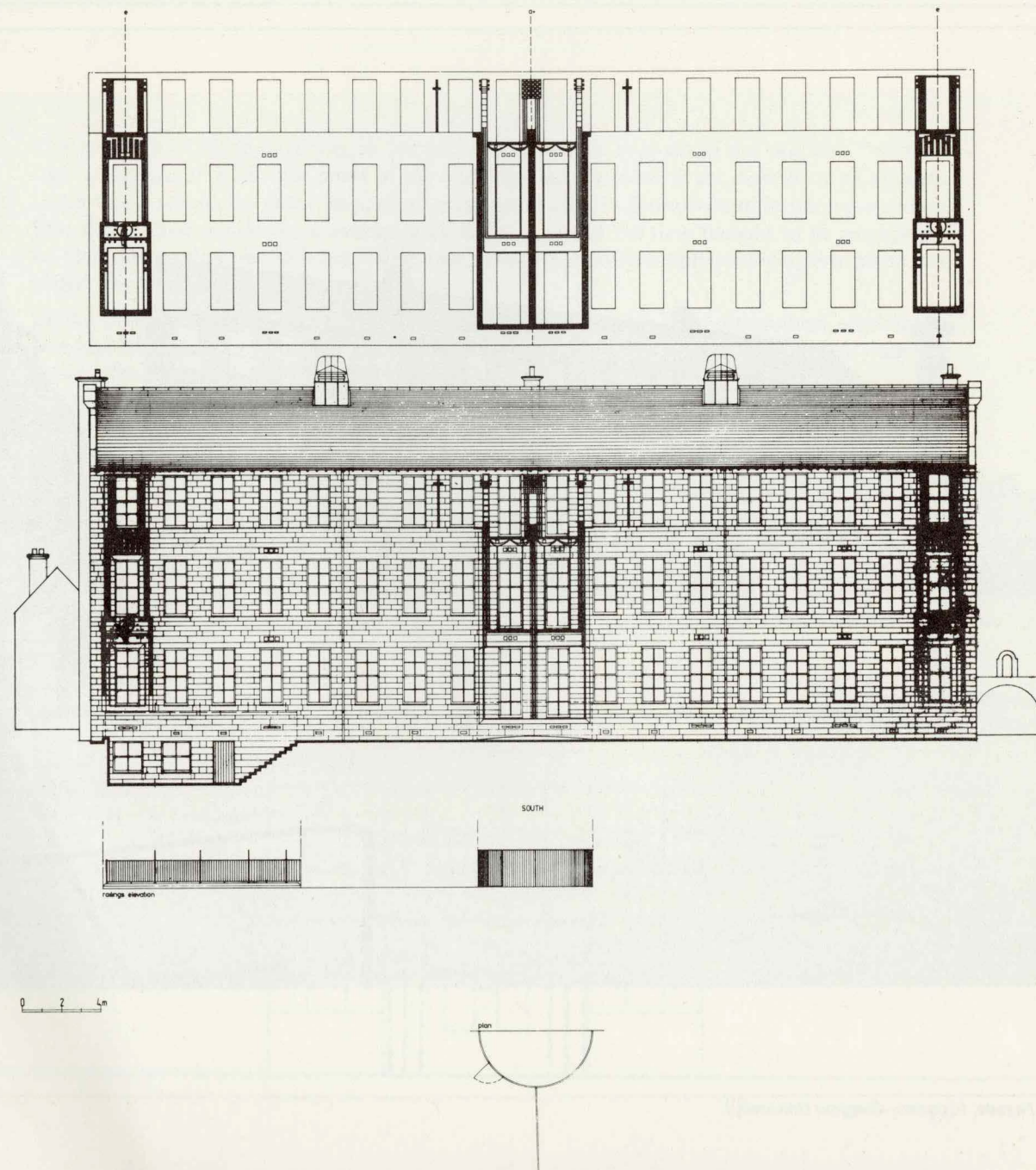
Unlike other vertical elevational features, the stair towers have a three-dimensional relationship with the interiors of the building; they therefore require a fuller investigation. (Refer to notes on drawing No. 9).

Each tower is flanked by a "stack" of small cloakrooms which have very low ceilings allowing them to be positioned on both mezzanine and main floor levels. The elevational result of this is a complete break in scale which divorces the central composition from the asymmetrical side elements. This is further achieved by the gradual stepping back of the two top cloakrooms thus revealing the stair tower, at a high level, as a more complete form.



South Facade. (Courtesy Glasgow University).





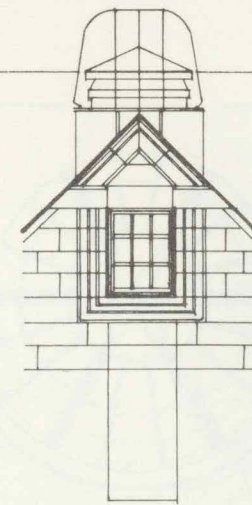
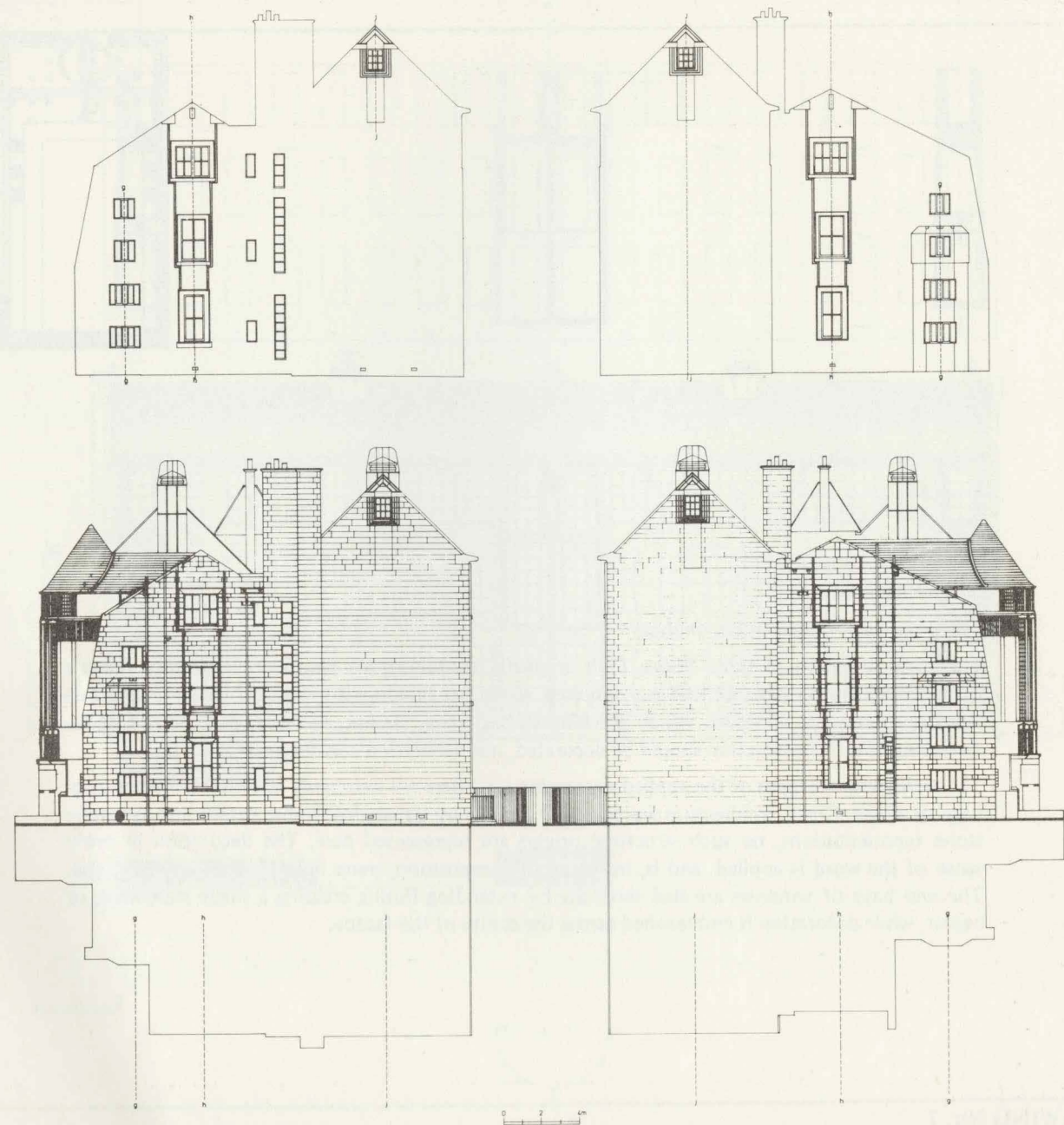
### South Elevation

#### *Upper drawing Fenestration Analysis*

This is an elevation to three floors, each originally containing six identical classrooms. From a functional point of view, all that was required was a flat facade with identical windows and this is more or less the approach which Mackintosh has taken. He has, however, pursued one of his doctrines, that "Construction should be decorated, not decoration constructed".

The architectural origins of the applied decoration used here are extremely abstract. While the language of classic Greek architecture was allegedly derived by translating timber details into symbolic stone representations, no such structural origins are represented here. The decoration in every sense of the word is applied, and is, in nature of composition, more heraldic than anything else. The end bays of windows are tied vertically by extending fluting creating a single statement, or bearer, while decoration is emblazoned across the centre of the facade.





#### East and West Elevations

*Upper drawing Fenestration and Symmetries.*

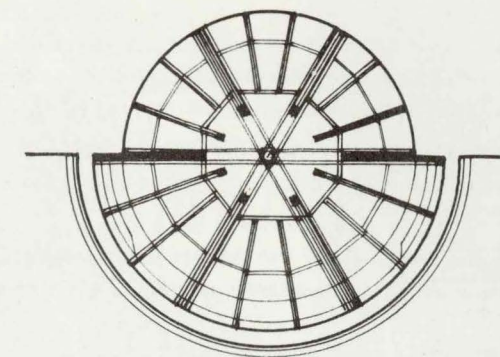
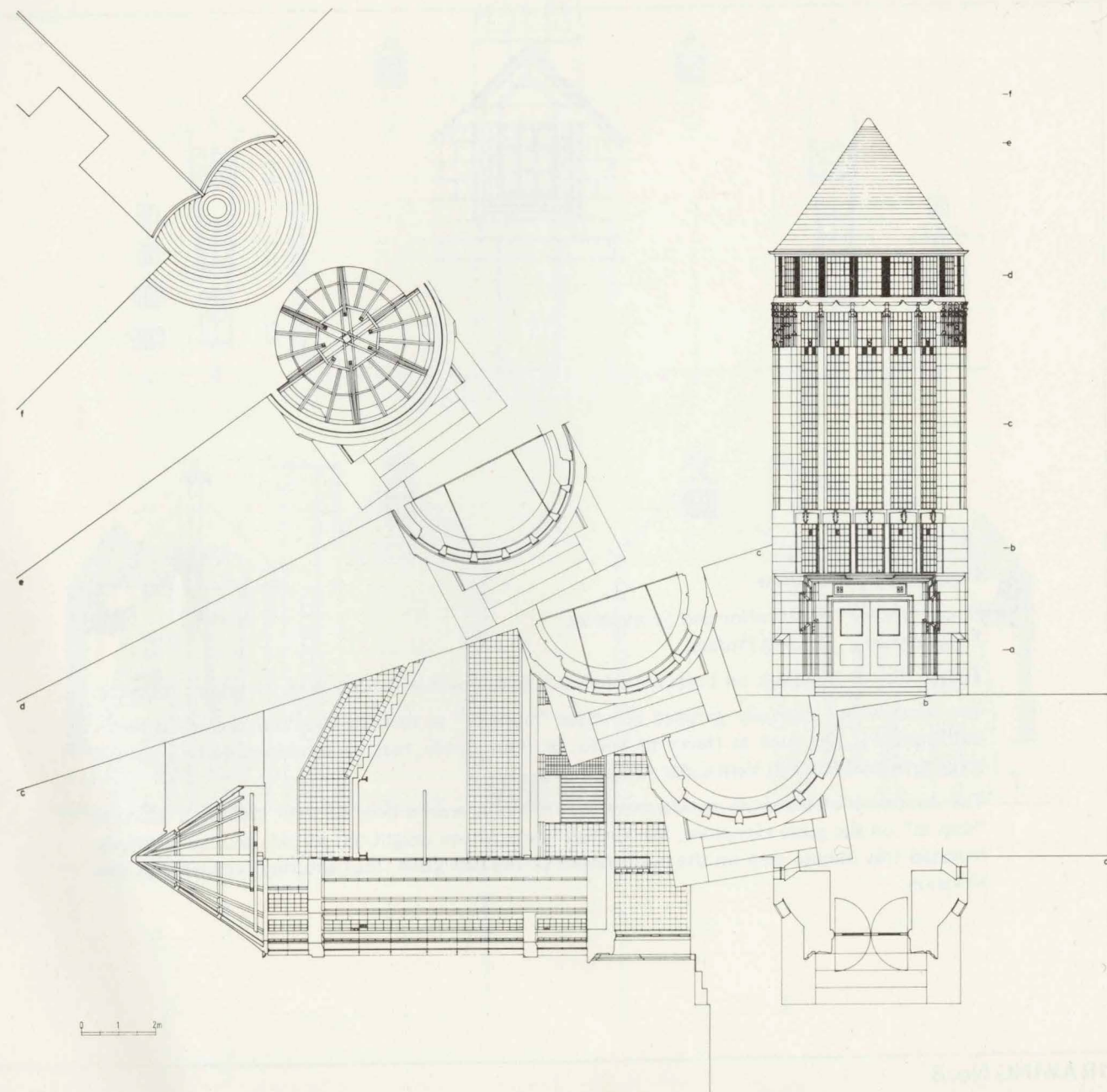
*Lower drawing Building Profiles.*

Today, due to buildings on both boundaries, it is impossible to view these elevations properly.

The windows are carefully grouped in vertical "bundles" so that the elevation as a whole seems influenced by men such as Devey or Webb, or alternatively, may be considered to be a natural consequence of Scottish Vernacular Architecture.

The stonework of the south facade steps back 50mm at second floor sill level, creating a resultant "step in" on the gable elevations. Mackintosh has not been caught out by this and has faithfully repeated this minute step on the north return of the east gable, thus ensuring symmetry to this elevation.





#### Stair Tower Details

At the base of these east and west towers, Mackintosh sited the girls and boys entrances respectively. Each doorway leads directly into an entrance hallway which has a very low ceiling (approx. 2.050m as the floor level varies). By adult standards, this headroom is disconcerting and today a claustrophobic atmosphere has been created by recent "improvements", which involved the introduction of fire screens and side walls to the assembly hall. Originally large open spaces between tapering tiled pillars allowed a release of space, threw plenty of natural light into the hallway and opened up a multitude of internal vistas which must have made this now dull and oppressive space an exciting place to enter.

From the ground floor entrance hallways, the only vertical circulation in the building starts as staircases lead off. This vertical function has clearly determined the way in which the tower exteriors have been handled architecturally.

At the higher levels the stair tower plan form is based on a semi-circle, the centre of which is a point in line with the face of the facade. The plan form, therefore, is a full 180°. However, at ground level the embarrassment created by the insertion of a flat plane doorway onto the curvature of this drum, has been cleverly overcome by a change in the plan form. This, coupled by the need to provide a visual base to these towers, has led Mackintosh to play with geometry and a subtle composition of circle and square has led to the form of the entrance we see today.

This complicated three-dimensional play on inter-penetrating curvilinear and rectilinear forms, decorated and softened by a multitude of rippling mouldings, stands as a true epitaph to the genius of the designer.

DRAWING No. 9



On the ground floor mezzanine level one finds oneself, for the first time, inside the tower — here all is revealed. The floors above step back respectfully and allow the volume to rise on up and into the conical roof where a complicated timber structure supporting the tower cap is displayed. Five vertical columns of leaded glass windows rise up the tower, and at the low level, a broad stone transome gives a necessary reduction in scale. Externally this transome carries through the line of the assembly hall windows.

At this first mezzanine level, the low soffit of the landing above creates a similar effect to that of the ground entrance hall below. Here recent alterations have again robbed this level of much of its original character.

Initially the floor slab was allowed to project slightly between a row of free-standing columns and a gallery was formed which overlooked the assembly hall below. Today, the columns still remain, clad in blue tiles with three courses of green tiles forming a capital, but the open side has been bricked up.

Mackintosh has been very thoughtful of the vertical circulation in his towers. All the flights from the ground up, rise towards the back of the building. However, the final flight reverses this pattern and lands at the summit of the tower volume. The effect of this is a strong sense of arrival or termination, and to strengthen this, Mackintosh has introduced two extra windows; the vertical rise of five windows has now become a horizontal band of seven. The vertical journey has ended. Externally this band of seven windows provides a transition space between the vertical rise of the tower and the conical roof cap. This transparent glass collar is strengthened by a deep band of vertical stone ribbing which is allowed to run onto the facade on either side.

The vertical nature of this detail is very sympathetic to the curvature of the tower — horizontally these ribs would maintain equal spacing, but vertically the ribs are seen to merge.

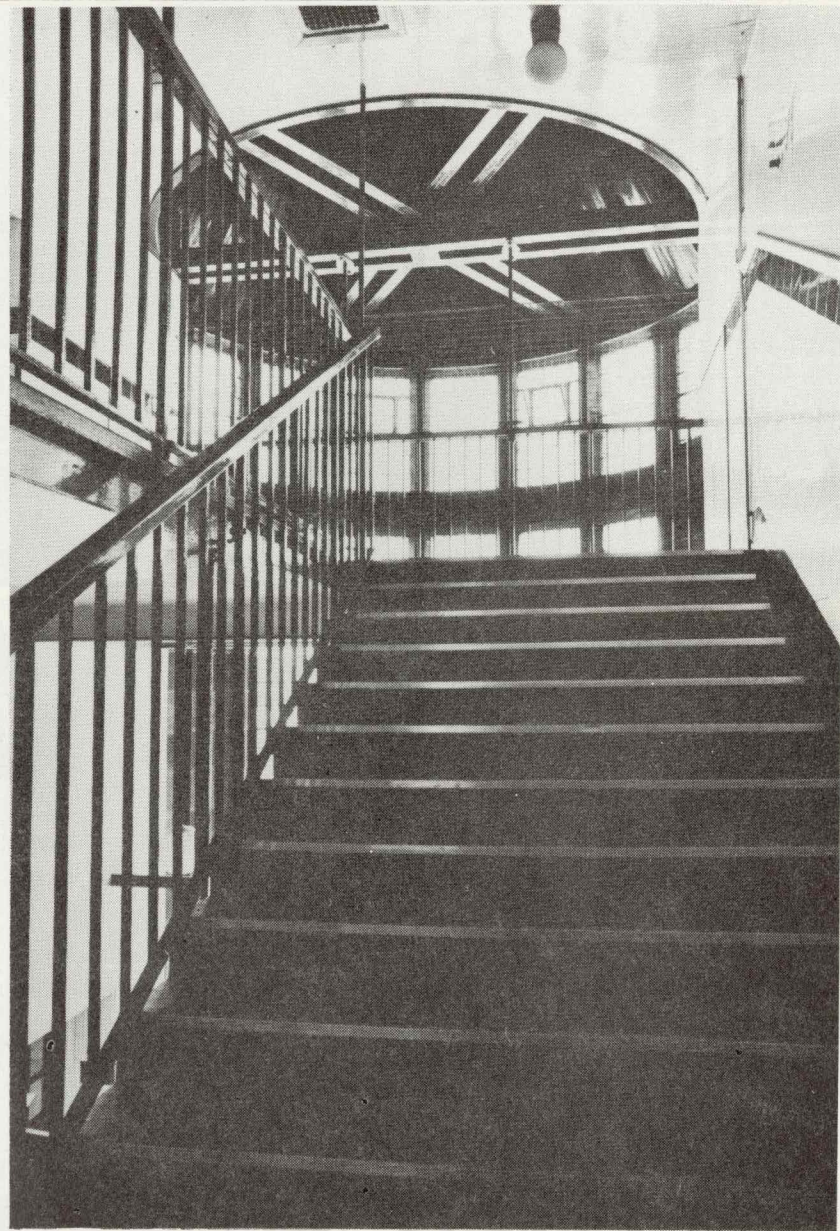


*Stair detail, second floor*

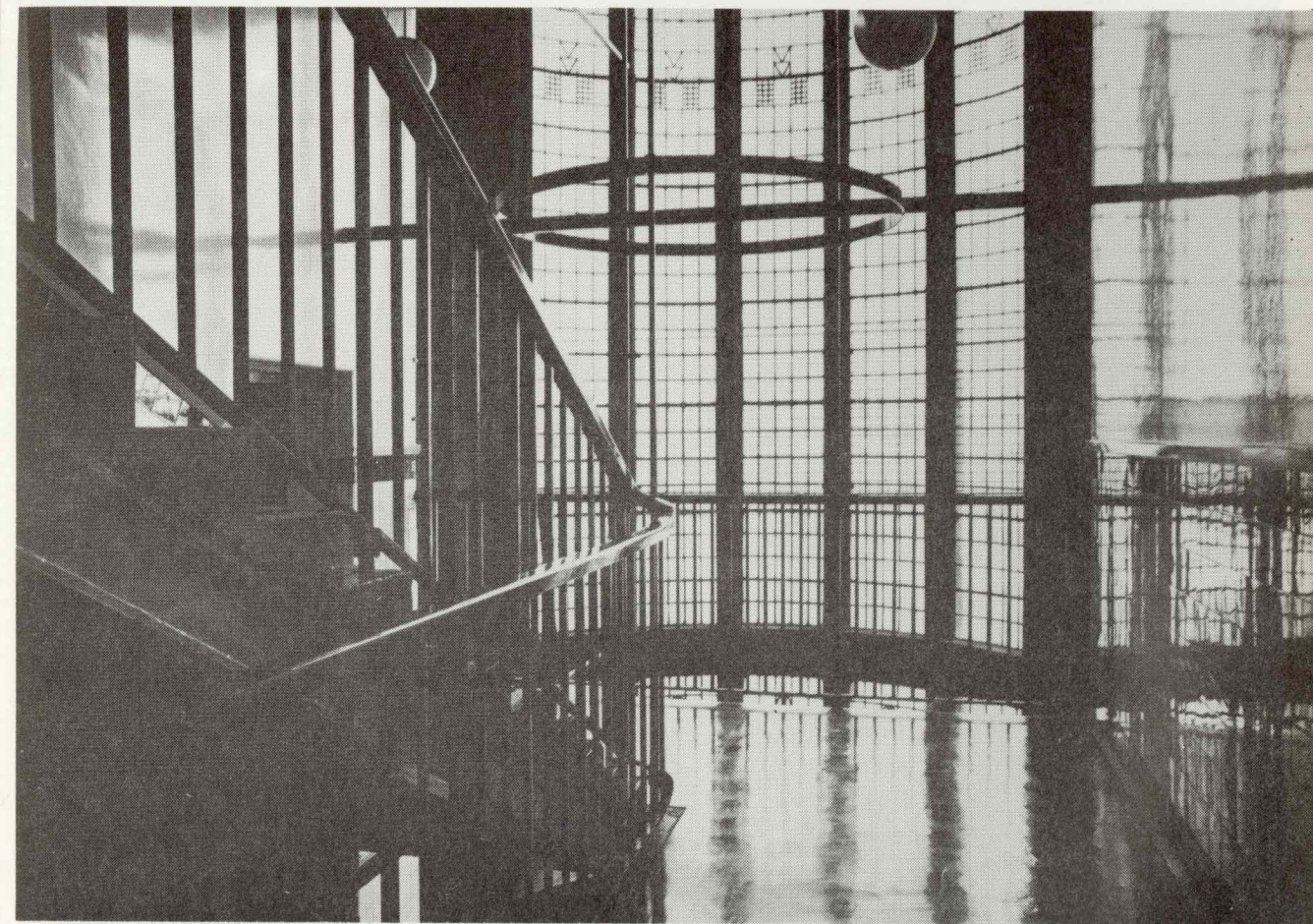


*Stair detail, ground floor.*



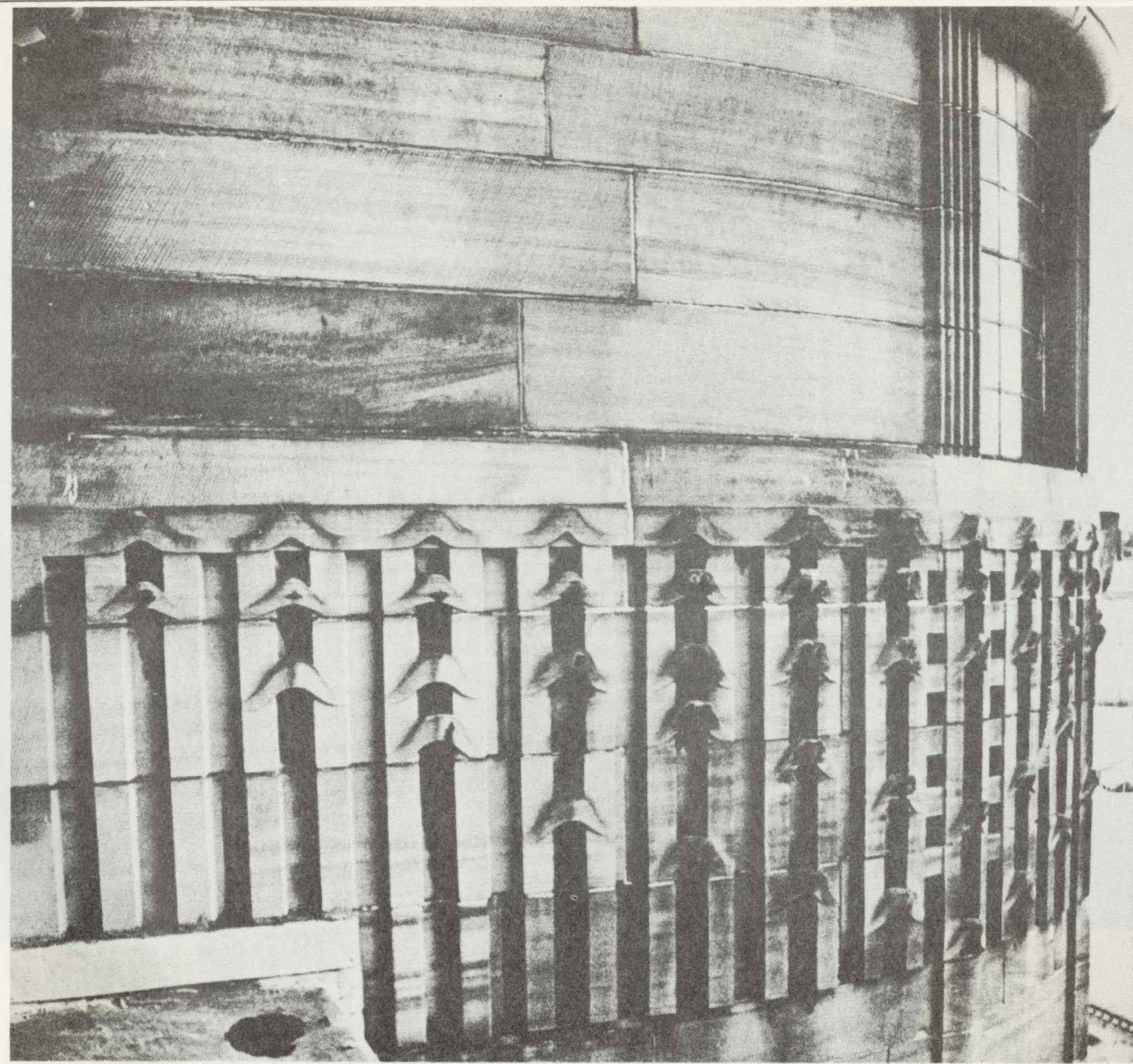


*Staircase leading to Top Level.*

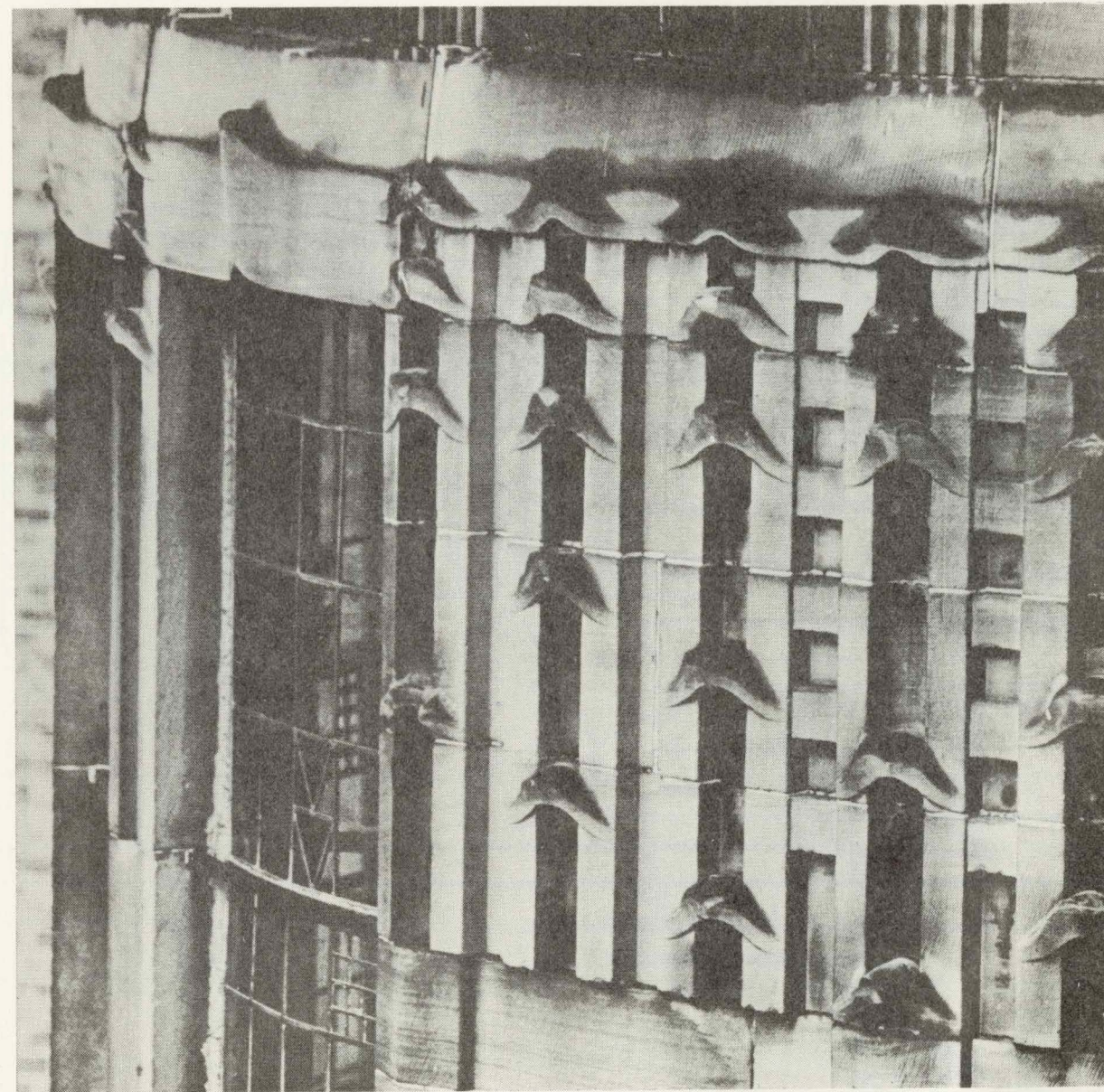


*Stair Tower interior.*



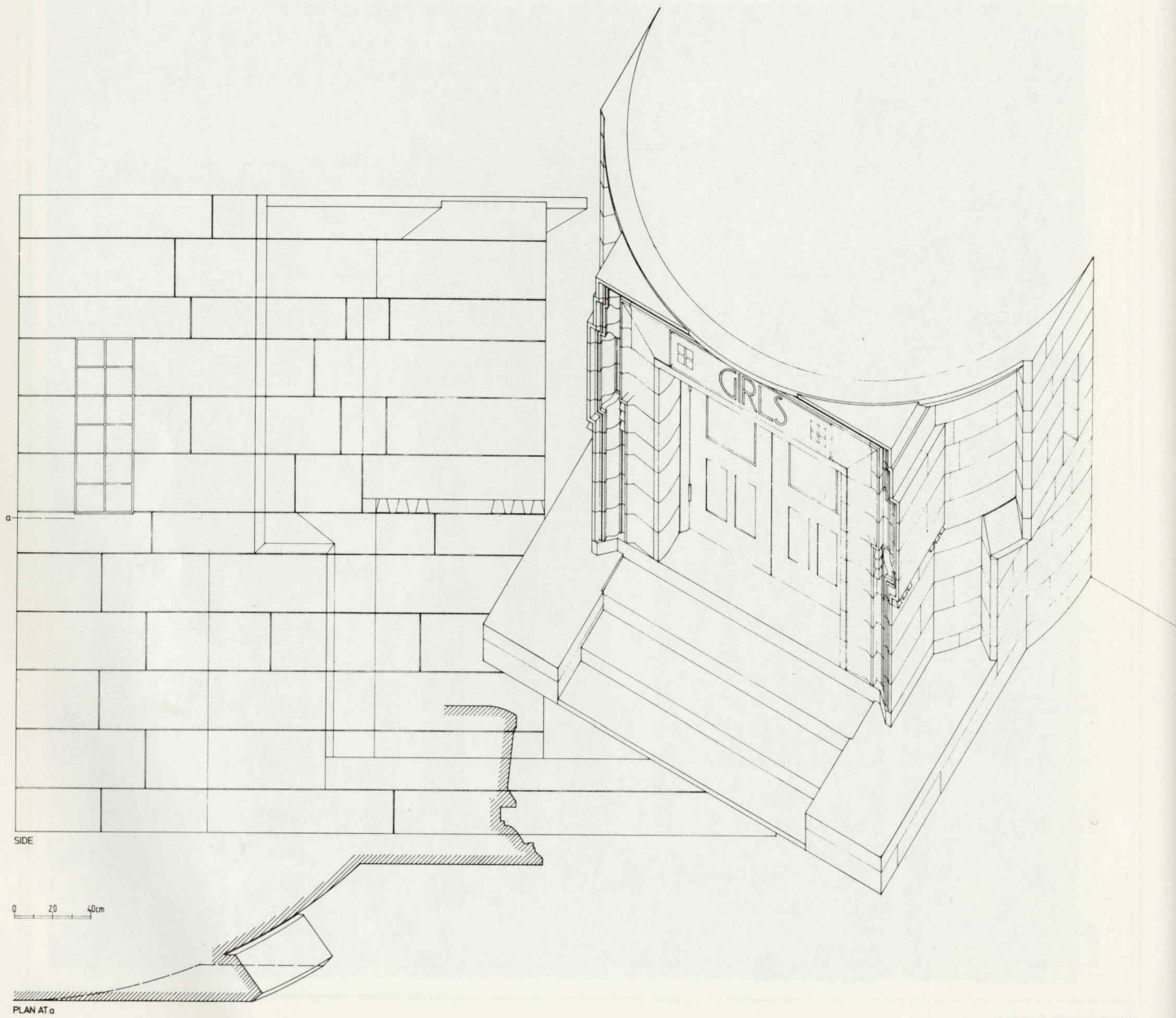


*Stair Tower (detail).*

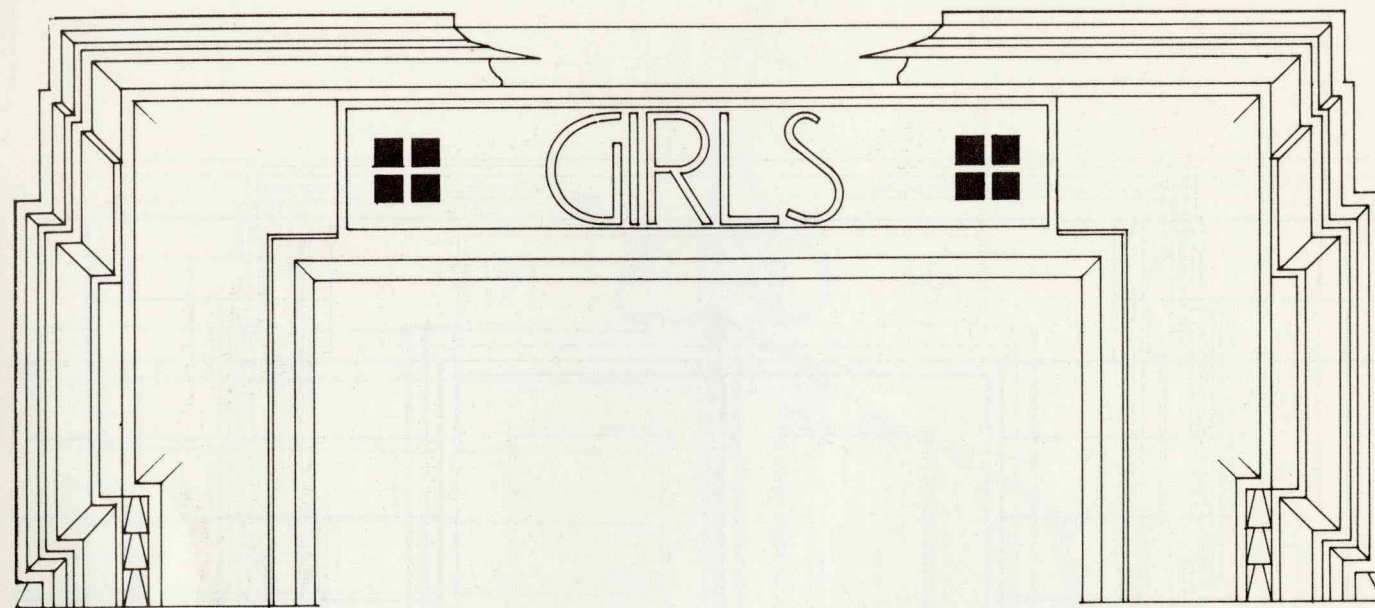


*Stair Tower (detail).*









#### Elevations and Three Dimensional Projection to Girls Entrance

The two main entrances are excellent examples of Mackintosh's mannerist wit.

The door opening is a perfect square, a theme which is repeated continually; two groups of four green squares punctuate the lintel.

The elevational geometry is contrived at every detail. The door surround is, of course, derived from the "Architrave" which has been zig-zagged. From the overhangs, created "Guttae" are hung or strung in three's to give a tassel effect. A most entertaining game.

Another geometrical device used here and especially on the south facade details, is the insertion of prismatic forms into a curved surface, the stepped "Architrave" is inserted like a mask onto the stair tower.

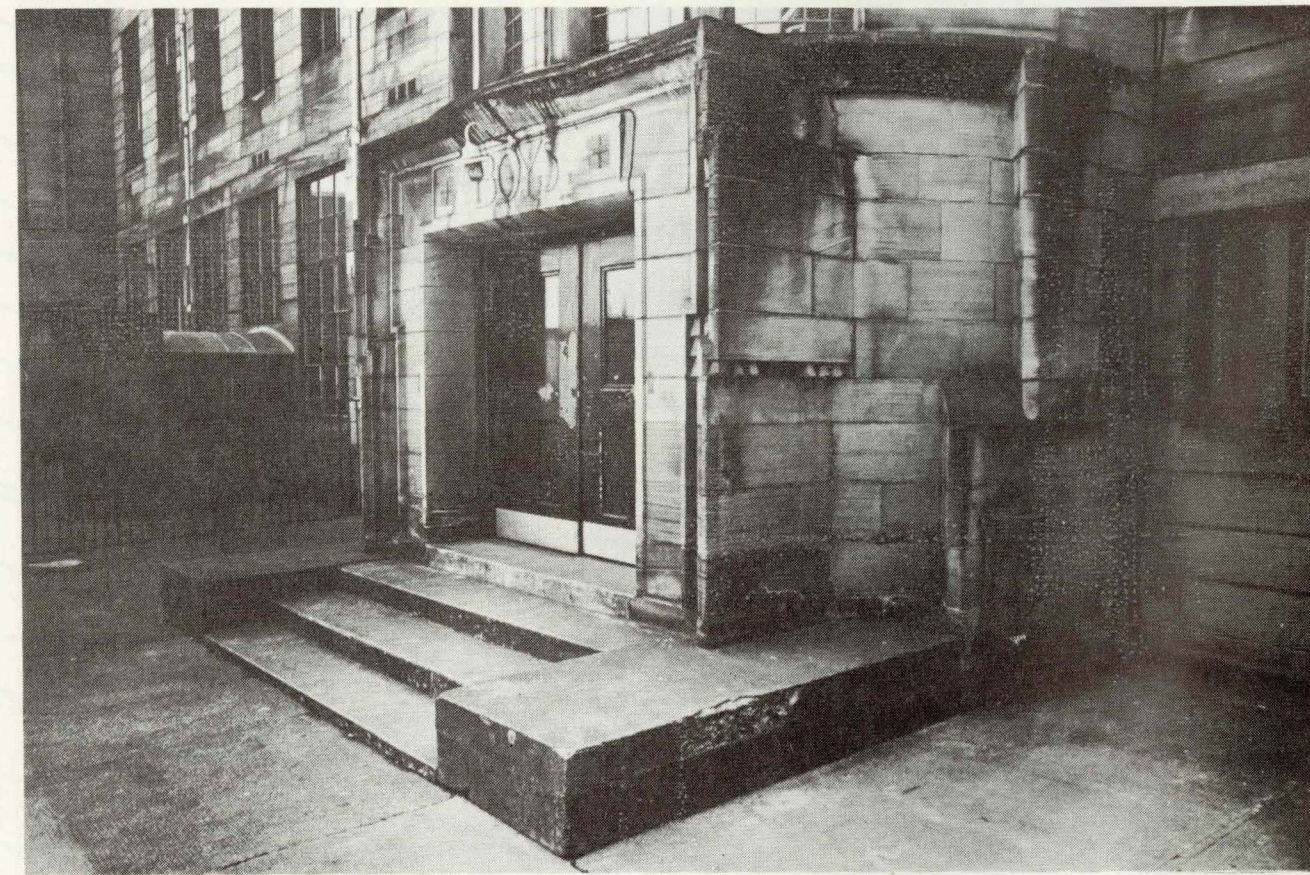


Stair Tower Girls Entrance



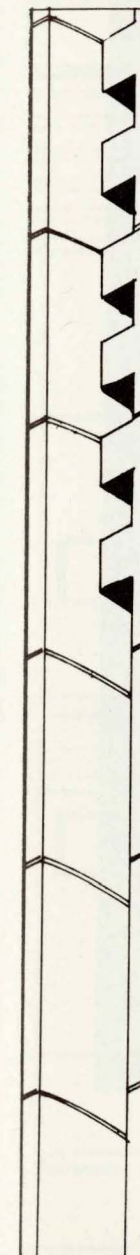
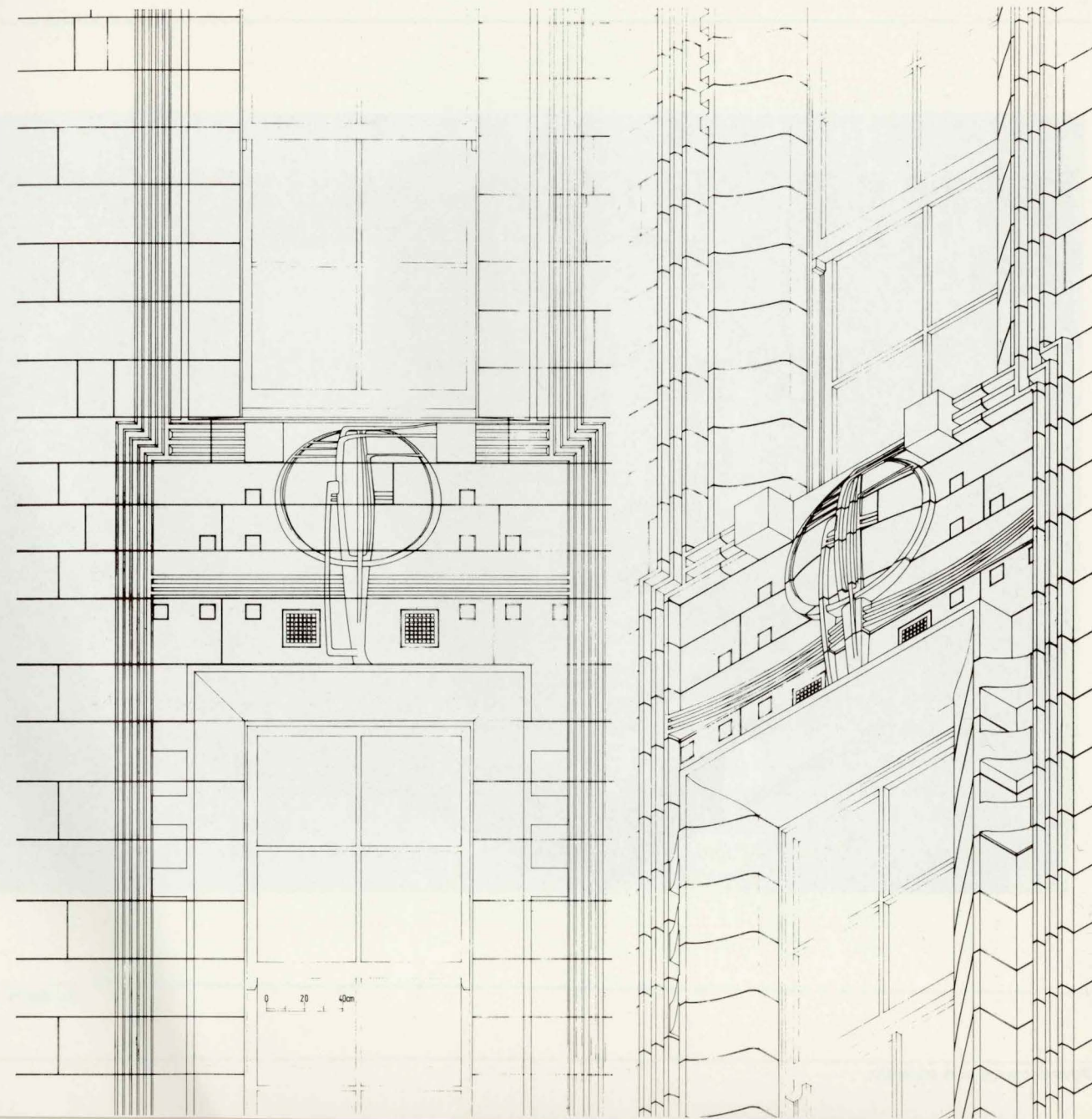


*Boys Entrance.*



*Boys Entrance, side elevation.*





DRAWING No. 12

**Detail Elevation and Isometric View (looking up) at First Floor Level on the South Facade West Side**

Curiously framed by strict rectilinear fluting, the oval motif can readily be classified as organic in origin and art-nouveau in style. Two cubes of stone are intersected into the retreating curvature of the sill overhead.

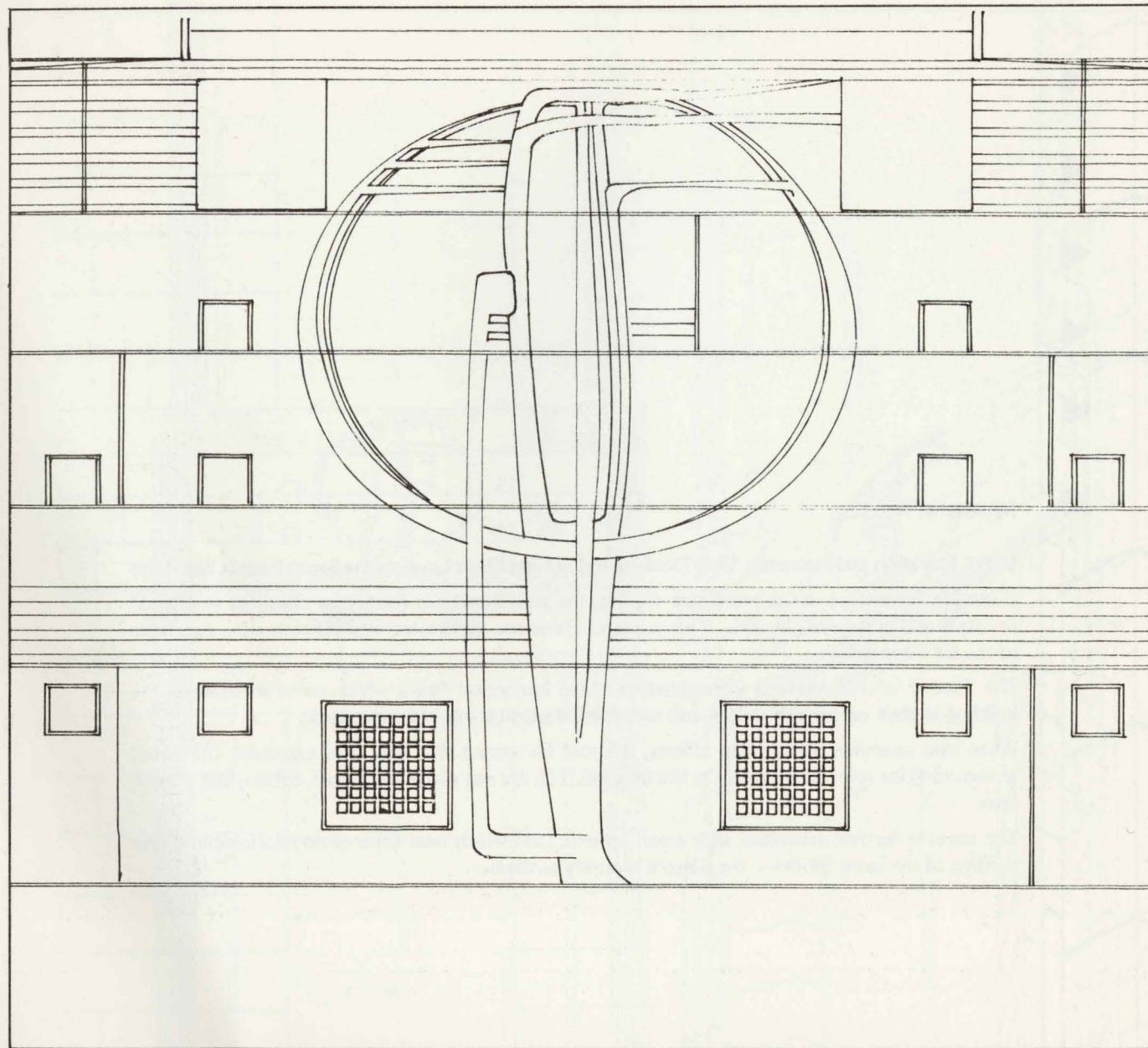
The "Stem" of the motif is intersected by three horizontal flutes which curve in towards the building at their centre and almost, but not quite, disappear into the stonework.

When one examines weathering effects, it could be argued that this, and especially the detail at second floor level above (refer to drawing No. 13), are not really stonework details, but graphic ones.

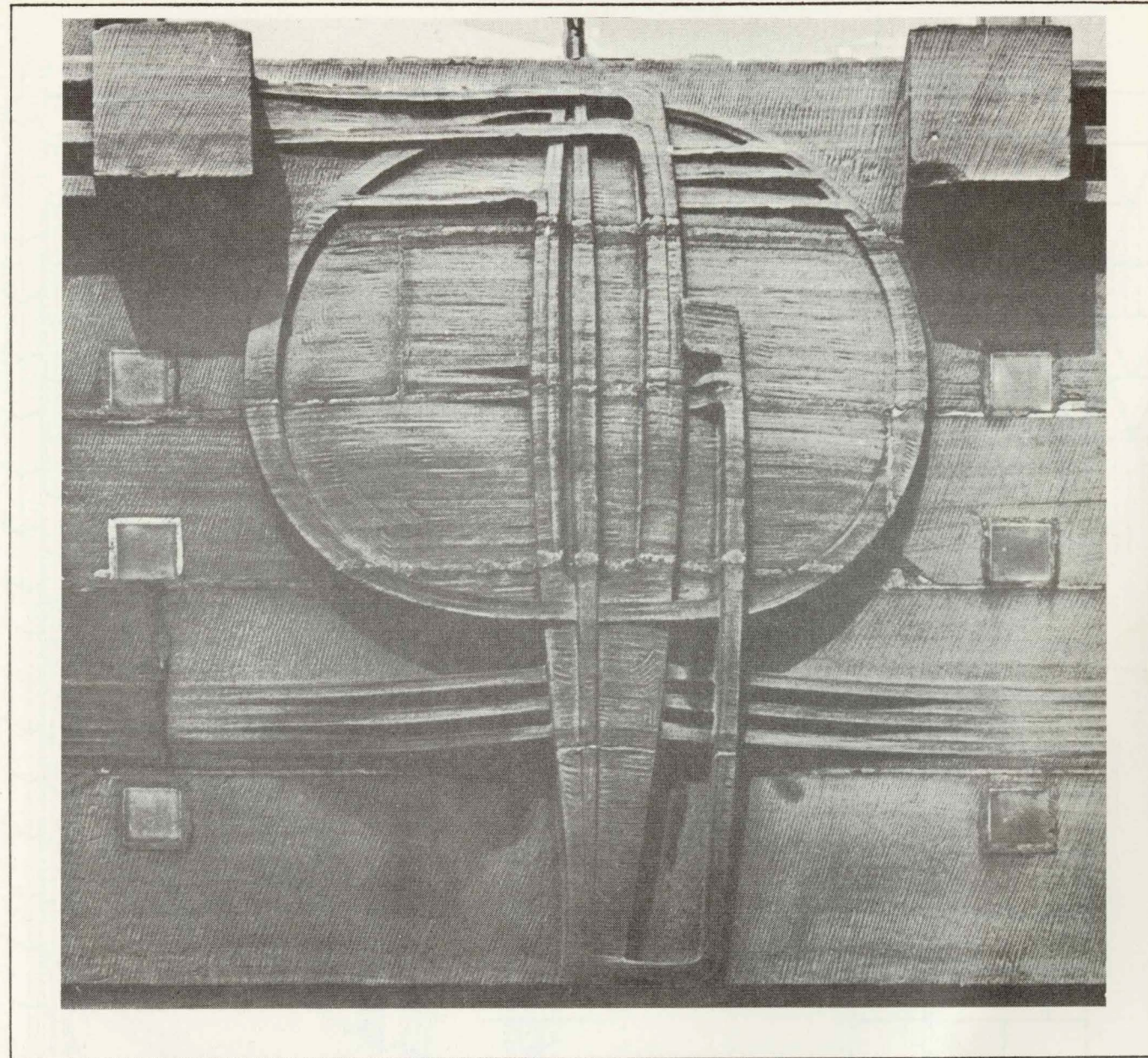
The panel is further decorated with green ceramic tiles which bear little or no relationship to the jointing of the stone blocks — the pattern is purely aesthetic.

DRAWING No. 12



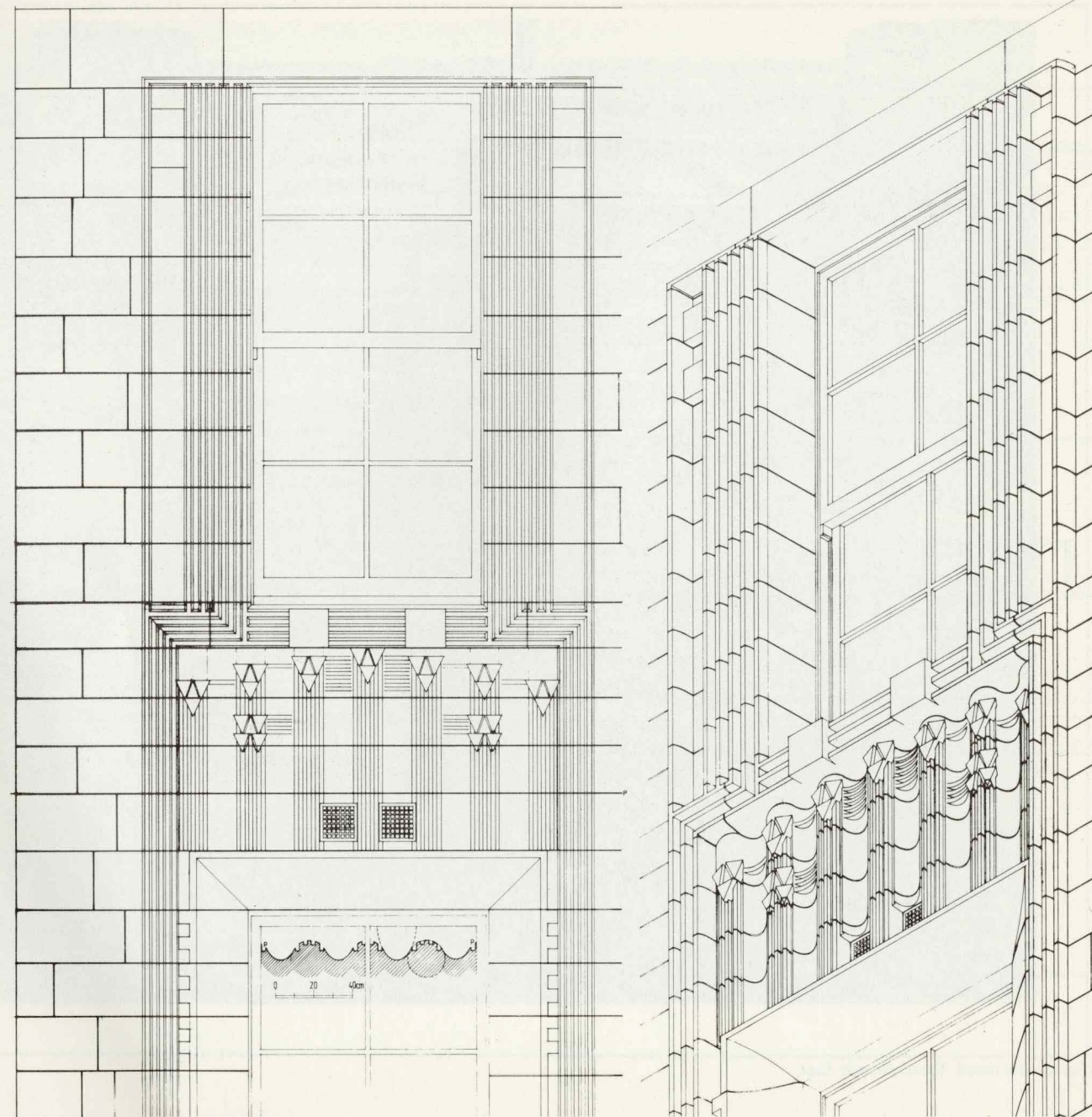


*Stonework Detail, South Facade-West.*



*Stonework detail, South Facade-East.*

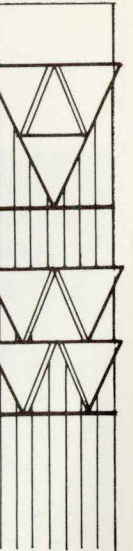




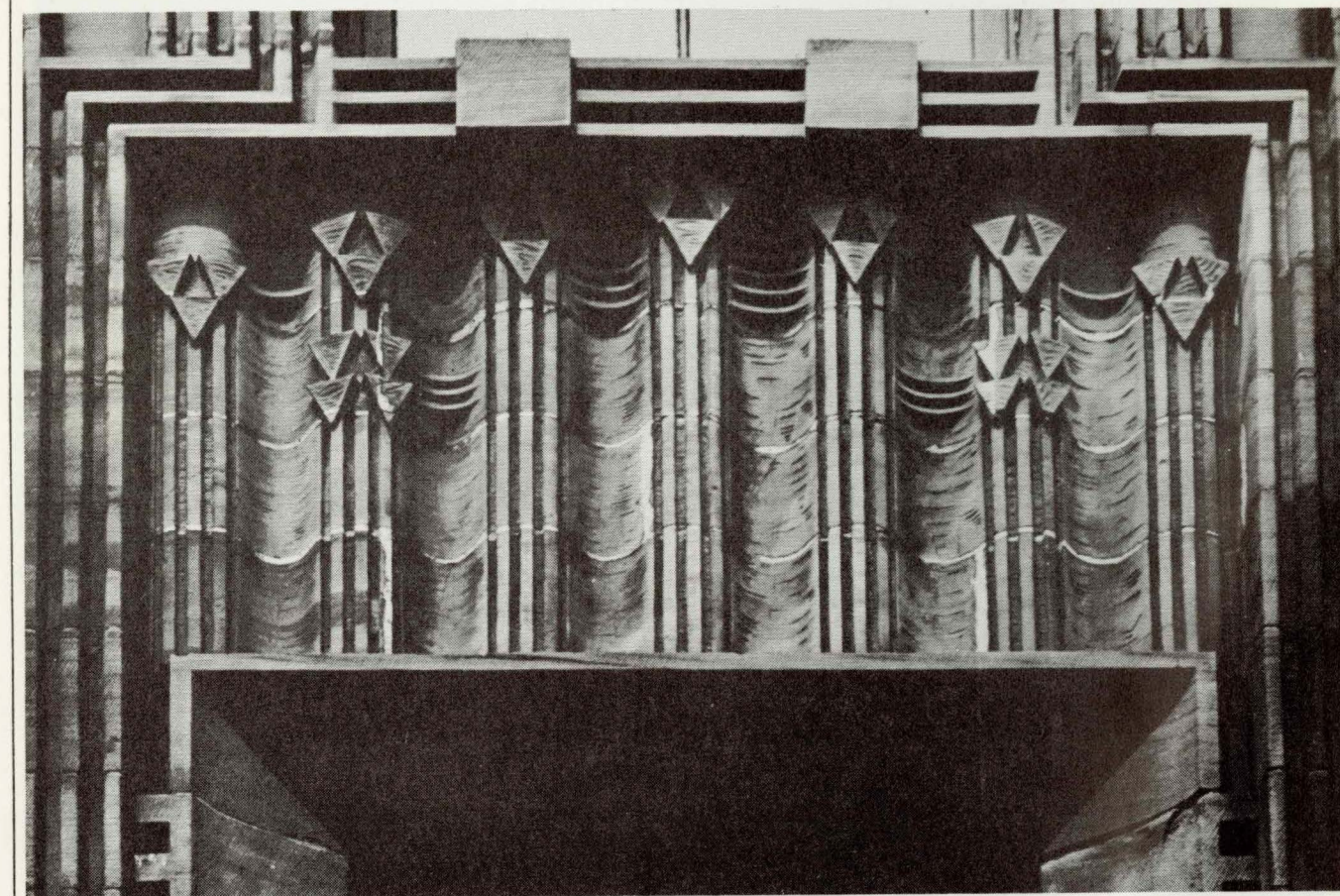
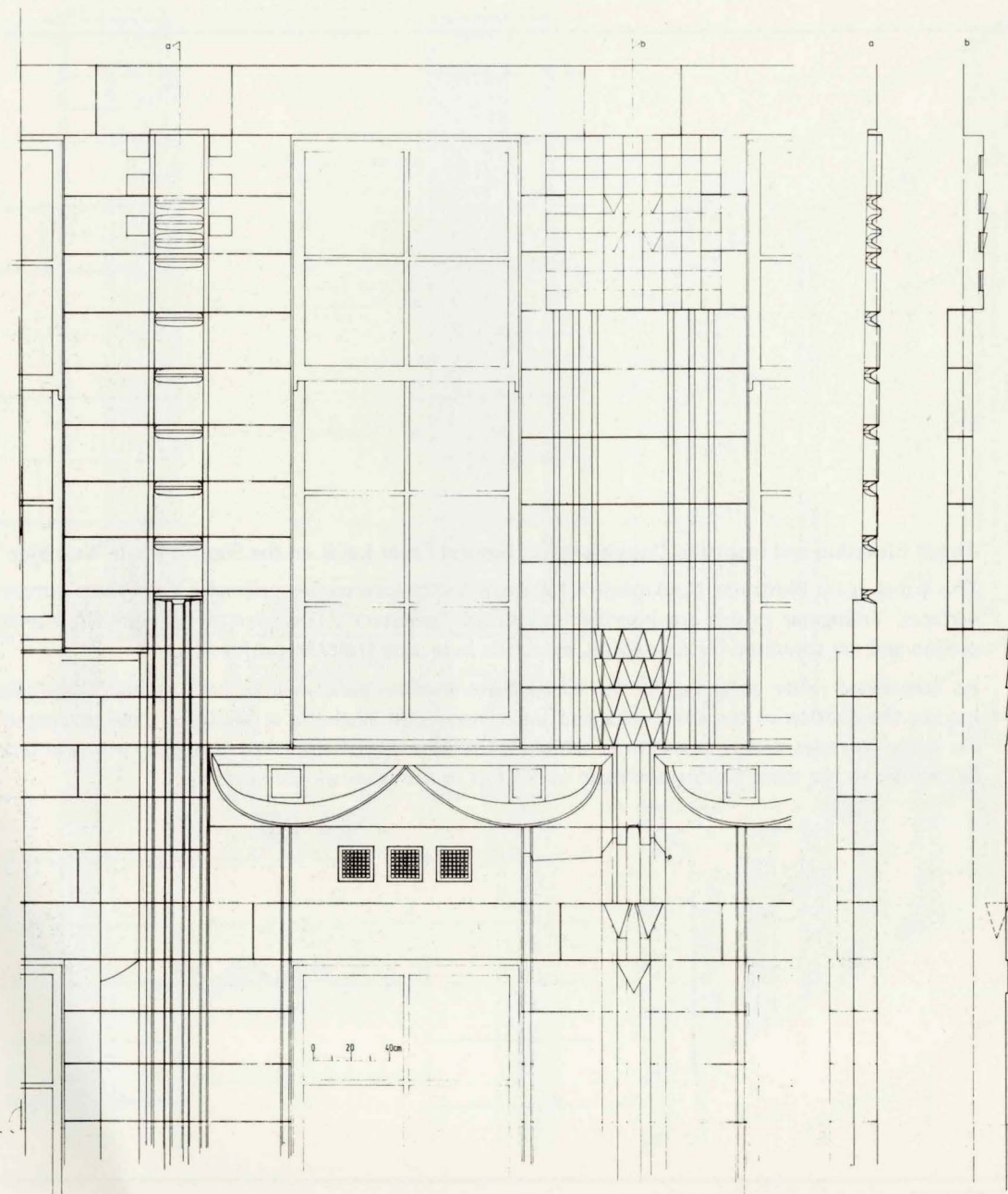
**Detail Elevation and Isometric (looking up) at Second Floor Level on the South Facade West Side**

This panel again illustrates Mackintosh's fascination with intersecting prismatic shapes into curved surfaces. Triangular prisms are inserted into fluted "pilasters". The pilasters are semi-circular in section and are separated by concavities, parabolic in section (refer to profile 'P').

As mentioned when referring to the tiles of the window panel below, here again Mackintosh ignores the division of the stonework and superimposes an aesthetic in the layout and spacing of the stone triangles. One's attention is drawn to the tiny tips of the lower triangles, which in fact belong not to the stone bearing the main motif, but to the stone directly below.

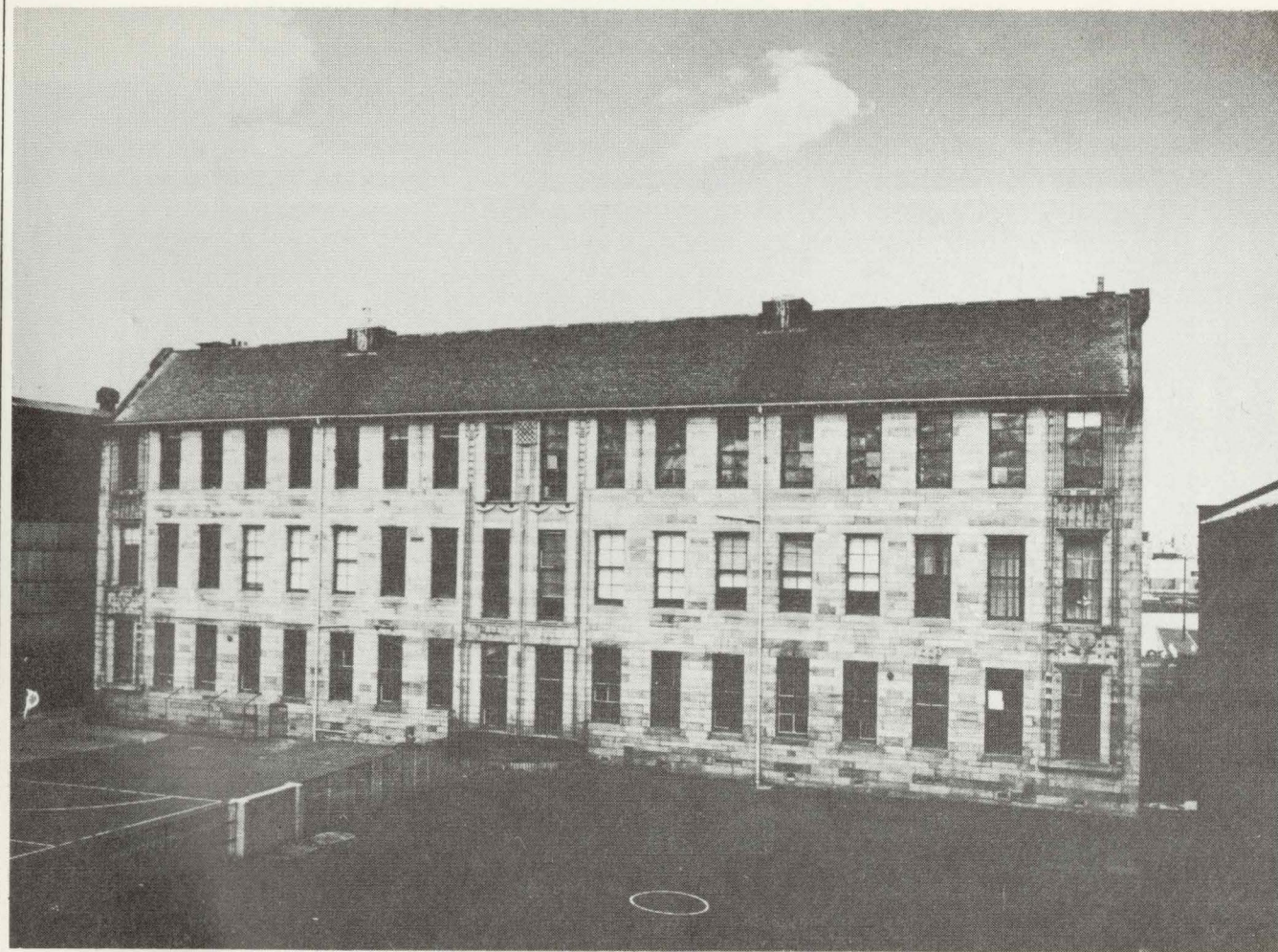






*Stonework detail, South Facade-East.*





South Facade.

#### Detail Elevation Sections and Isometric (looking up) at Second Floor Level on the South Facade Centre

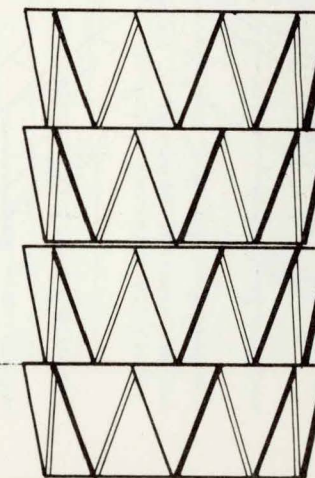
On the south facade the centre of the building has been emphasised by lowering the sills of the centre windows. This also recognised the importance of the two classrooms behind, which can be made into one large room by sliding away the partition which normally separates them. Inside this larger space the taller centre windows provide a necessary focal point.

Externally these windows are surrounded by stepped fluting and sloping window surrounds. Much of this detail is rather tenuous and perhaps would have been more apparent if executed in grey sandstone as Mackintosh had originally intended for the building. It does, however, succeed in making a single statement of the centre.

The most striking detail of this composition is the top-most square draught board motif, (often referred to as the "Chelsea Pattern"). In this case the motif is inlaid with green tiles and curiously bowed, as if to be easily read from either extremity of the playground. This bending echos the large curved sill below.

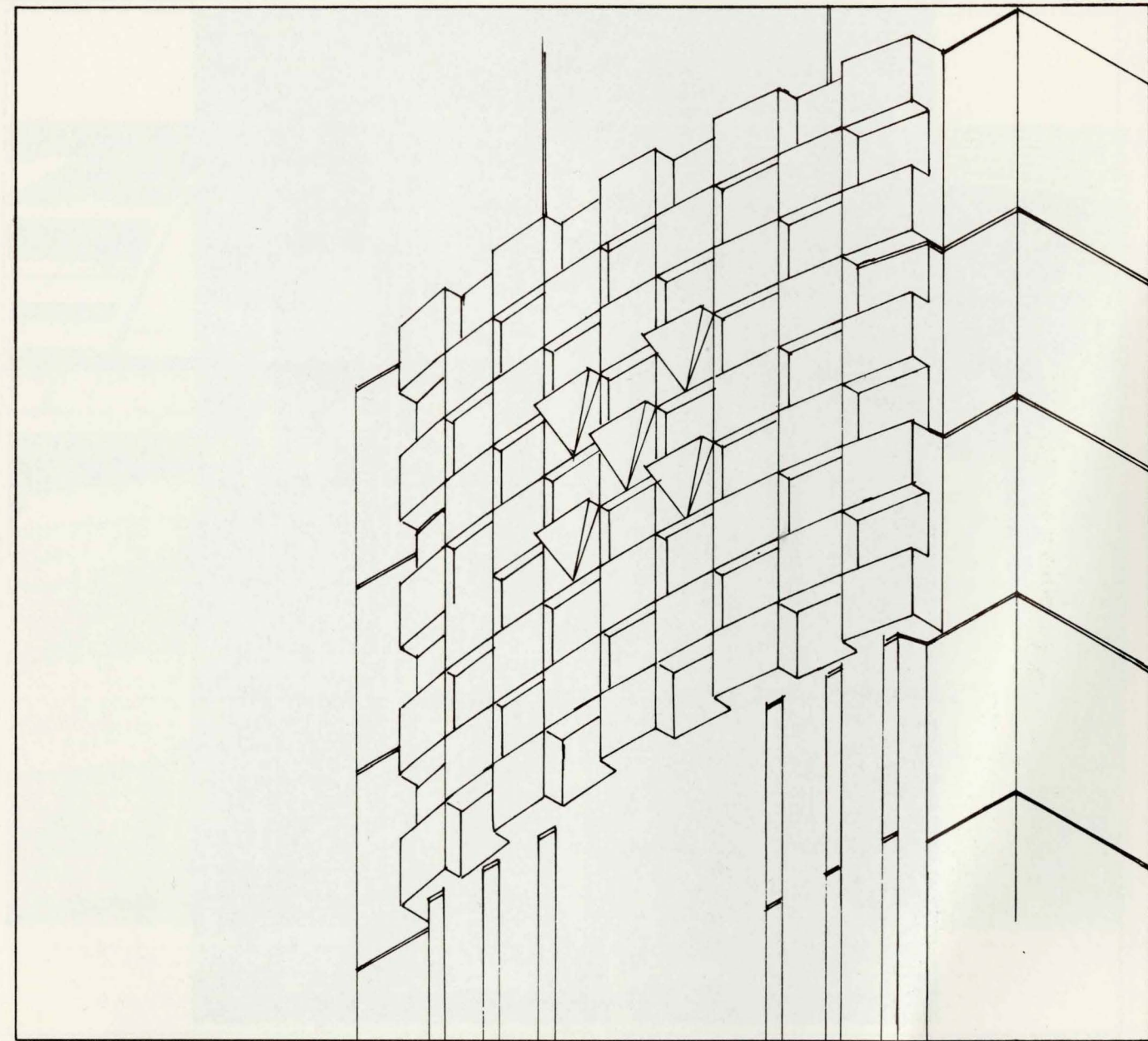
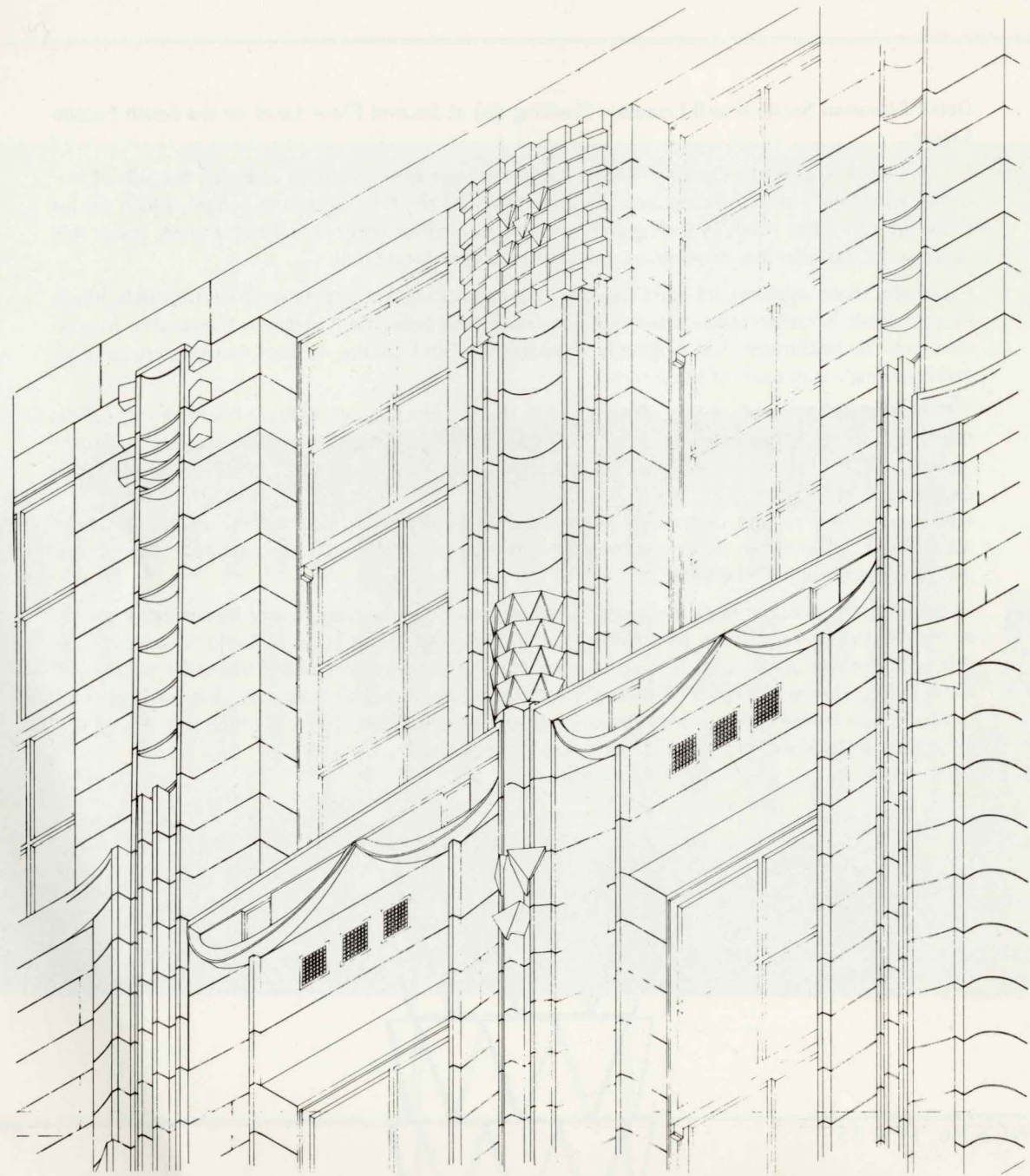
When one examines the perspective of the overall composition from below, one cannot help wondering if Mackintosh was experimenting with optical correction or if the gentle curves are a mannerist perversion of the same.

Underneath the checker board is a niche with a prismatic circular base. A very similar detail occurs in the drawing room cabinet for "Hill House" (1904 - 20). Early Dean of Guild Drawings show that a sculptural plant form was considered for this. Below, three sharp triangular prisms are inserted into the central spine of fluting. On the top floor a curious fluting detail is used between the second and third window when counting from the centre, the nature of which is similar to the effect created by pressing a firm rod flatly into a bed of clay.



DRAWINGS No. 14 & 15



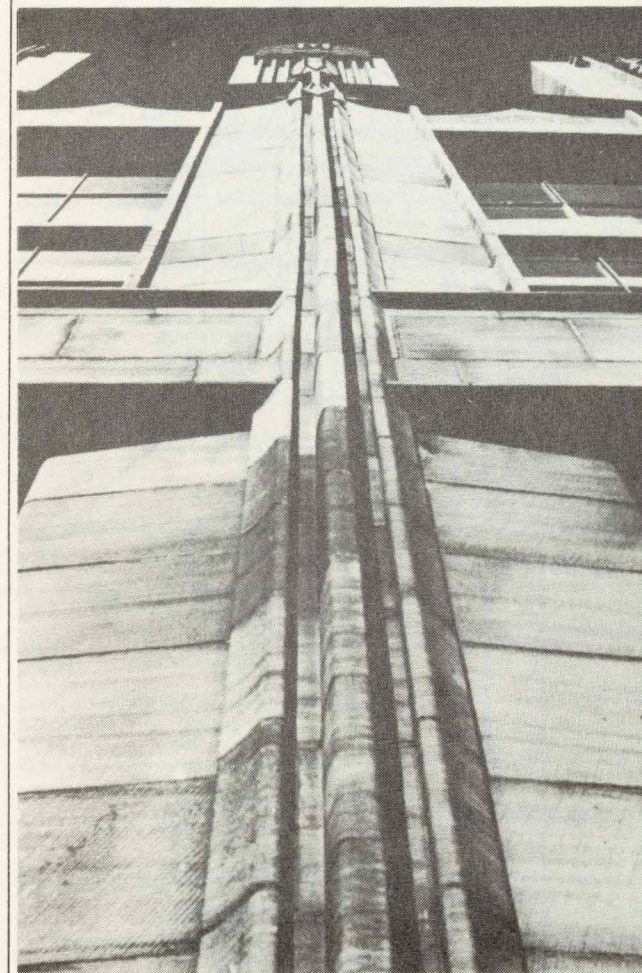


*Detail of Chelsea Pattern*

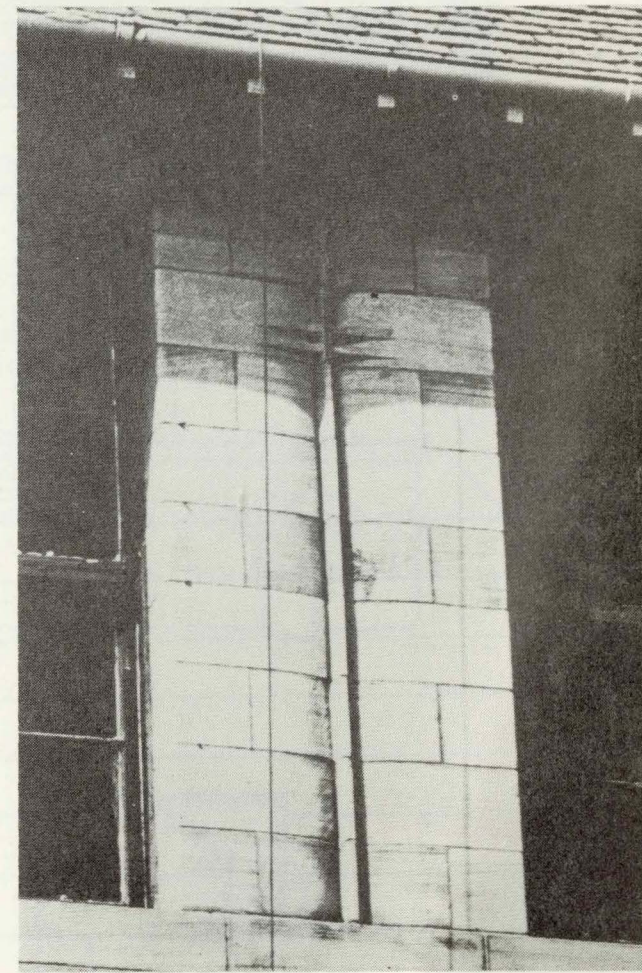




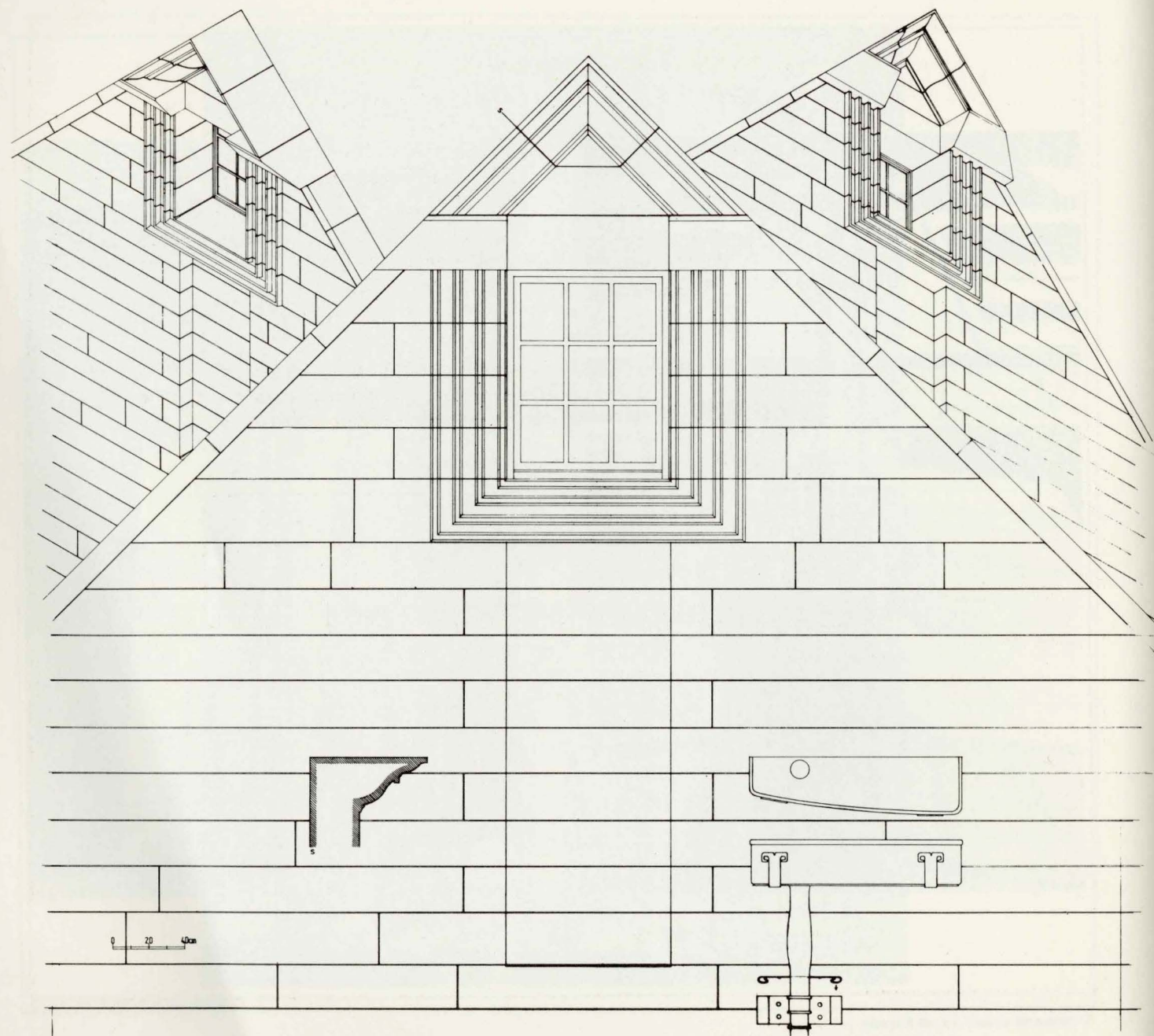
*South Elevation; Central Motif*



*Stonework detail, South Facade*







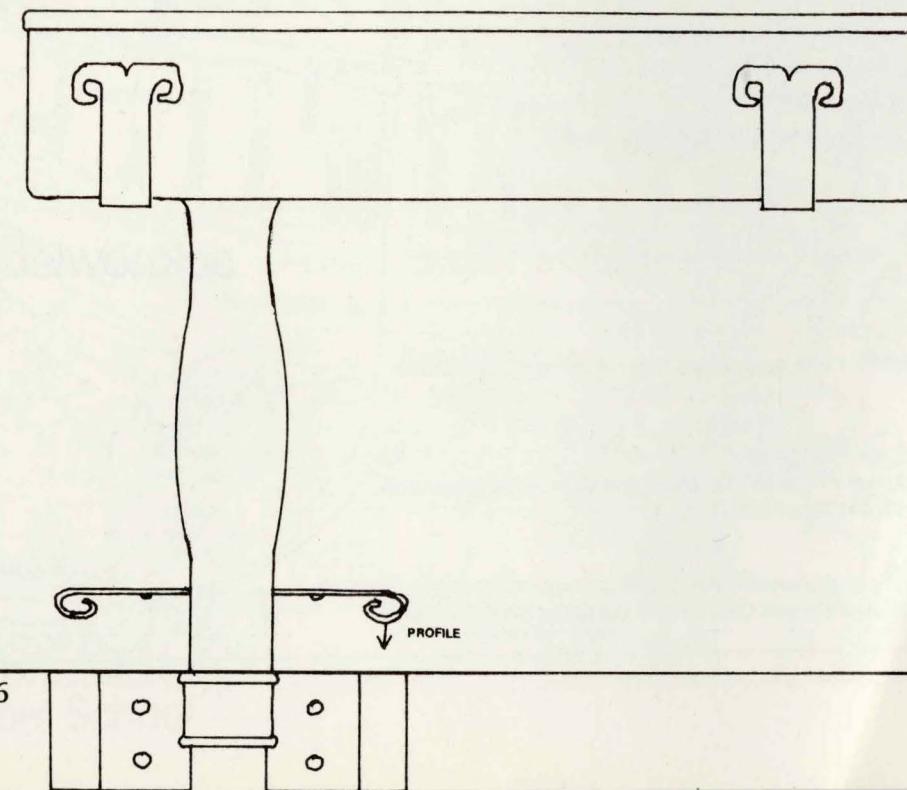
#### Elevation and Isometric Drawings of the East Gable Pediment

This pediment has been designed to crown the very tall east gable of the rear classrooms. A deep overhanging pediment cap (see section '5') springs outwards from two large sloping stone bearers and provides a definite "point" to the steep rake of the gable roof. Below this, a fully recessed window gives light into the attic roof space. Externally, four bands of stone ribbing faithfully follow the perimeter of this window and frame the hole.

The entire composition is introduced to the rest of the gable wall by a "Stem" of recessed stonework approximately 150mm deep on top of which the pediment appears to sit. This detail has also been used on the west gable although the gable itself is not so pronounced.

#### Rainwater Collection Box, West Elevation

Here we see that Mackintosh spares a thought for even the most mundane element of building construction. The prominence of its location is more important a consideration than the function it serves. There is no functional need for the bowed and tapering shape of the collection box, only the aesthetic desire to have it so.



DRAWING No. 16



Alan Millar and James Opfer both graduated from the Mackintosh School of Architecture Glasgow in 1979. They are both members of an Architectural Design Group known as MAC V, who although, are not a professional practice, do take an active part in the architectural community.

Their involvements to date have included the following:

Competitions:

1978 — H.H. Robertson's International Ideas Competition for young architects (under 40). A scheme to convert and re-use redundant gas structures, proposing an industrial site: Tradeston Gas Works, Glasgow.

First Prize: James Opfer published in the Architect's Journal and Mac Magazine.

1979 — Facelift 79 for Town and Country awards sponsored by the Sunday Telegraph and I.C.I.

Proposed planetarium for the Lyceum Building in Liverpool.

Highly Commended: James Opfer published in the Sunday Times Magazine.

1979 — International Timber Award.

Scheme for the redevelopment for an area in Cardiff.

Entry Short Listed: James Opfer Alan Millar

Photographs

Robert Hamilton: Born: Glasgow

Freelance photographer since 1975

Scottish Arts Council Award 1979

At present resident photographer Glasgow Print Studio.

Andy MacMillan is Professor of Architecture, Mackintosh, School of Architecture, Glasgow.

Mark Baines is an architect and contributor to architectural publications.

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## biographical notes

## acknowledgements



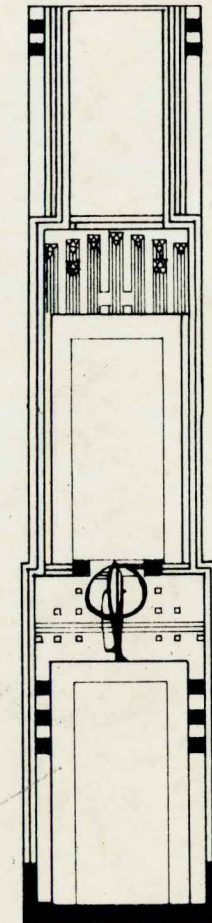




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